Maratha Vidya Prasarak Samaj's

Arts, Commerce and Science College, Nandgaon

Tal – Nandgaon, District Nashik – 423106 (M.S.) India.

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(Id. No. PU/NS/ASC/021?1972)

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NAAC Reaccredited with 'A' Grade 3rd Cycle

3.3.1 Number of research papers published per teacher in the Journals notified on UGC website during the last five years

Sr. No.	Year	Number of research paper
1.	2017-2018	27
2.	2018-2019	18
3.	2019-2020	11
4.	2020-2021	10
5.	2021-2022	13

Arts, Commerce & Science College Nandgaon (Nashik)

Principal
Arts, Commerce & Science College
Nandgaon, Dist. Nashik (M.S.)

3.3.1 **Number of research papers published per teacher in the Journals notified on UGC website during the last five years**

Sr. No.	Years	Title of the research paper	Page No.
1.	2017-18	E-Advertising: Advantages and Disadvantages	01
2.		Bhartiy Rajkarnatil VIRODHI Pakshachi Bhumika	02
3.		Manvi Adhikar ani Adivasi Samaj	03
4.		Bharat v chin sambandhanche badalte sandharbha	04
5.		Screening of endophytic fungal extract of calotopis procera for insectidal activity against callosobruchus chinensis L. (Coleoptera: Bruchidae)	05
6.		Comparison of Development of government healthcare facilities in Tribal and Non Tribal region of Nashik district (Maharashtra) India	06
7.		Insecticidal activity of endophytic fungal extract of Jatropha curcas against callosobruchus chinensis (Coleoptera: Bruchidae)	07
8.		Determination of soil parameters in and around Nandgaon Tahsil (MS), India	08
9.		Insecticidal efficacy of endophytic fungal extract of Annona squamosa against callosobruchus chinensis	09
10.		A simple and efficient one pot synthesis of 2,4 dioxopyrimidine carbonitrile and 4-oxo-2-thioxopyrimidine carbonitrile derivatives using ammonium chloride under solvent free conditions	10
11.		Bharat aani chin sambandhanche badalte sandhrbha	11
12.		Sanitation: A need for sustainable Development	12
13.		Bharat Pak Sambdhachi Badalte Pailu	13
14.		Goods And Service Tax In India Economy: A conceptual Analysis	14
15.		Comparison of F.Y.B.Sc Mathematics and Physics students strength of MVPs Arts Commerce and Science College Nandgaon	15
16.		Study of Algal Diversity in the Waldevi dam near Nashik (M.S.), India	16
17.		India's Role in South Asian Regional Cooperation	17
18.		India's Relation With Development Countries	18
19.		Godan me mahanagriy our gramin jivan ki yatharth prasangikta	19
20.		A Photochemical and Pharmacokinetic Evaluation of Chrozophora rottleri (Gies.)Juss	20
21.		Matadar Vartanavar Prabhav Padnare Ghatak	21
22.		Bhartiya Nivadnuk Prakriya Vikas ani Sudharna	22
23.		Adivashinchi Sanskutik v shikshanik Chalwal	23
24.		Adivashichi yatihasik parshavbhumi v Jivan	24
25.		Synthesis of Co (II) metal complex of 2- ((2-hydroxynaphthalen-1-yl)methyleneamino)-3-phenylpropanoic acid	25

26.		Study of Intermolecular Association through Dielectric and Density Properies at Room Temperature	26
27.		Subaltern (Black Women's) Struggle to reach centre in Gloria Naylor's Mama Day	27
28.	2018-19	Lok Parampara lok kala aani Lok Rudi Ek Samajik anubandh Kavya Vidha Mein Swatantrata Aandolan	28
29.		Varvashi Me Prem Bhavna Ka Utkat Abhivaykthi	29
30.		Ichthyofaunal Diversity of cyprinus Species from Marathwada Region Maharashtra, India	30
31.		Air Born Fungi from Kubhmela festival in Nashik district	31
32.		Shetkari Atmhatya ani Maharashtratil krushi vyavstha	32
33.		Synthesis, Characterization and Antimicrobial Screening of Fe (II)- Glycine Schiff Base	33
34.		Oppression Of women In Vijay Tendulkar's Kamala and kanyadaan	34
35.		Biological Activities of Synthesized Dihydropyrimidine carboxylates & its Derivatives	35
36.		Chin ani Sarkdesh	36
37.		Shimavadache bharat va China varil Parinam	37
38.		Bharat Ani Chinichi Ashiyatil Bhumika	38
39.		Sahitya Samaj V Sanskriti Ek Aakruti badhya	39
40.		Mahilanche shikshan v Manvi Hakka	40
41.		Mahila Ani Rajkaran	41
42.		Nirmala Shinh Ki Kahaniyon mein sankraman kalin jivan mulyon Ki Sthiti Dasha Aur Disha	42
43.		Mahatma Jyotiba Phule yanche vandmane yogdan	43
44.		Ethinobotanical and Medicinal plant study in Trimbkeshwar Taluka, District Nashik, (MS), India	44
45.		Tolerance of Aliette by rhizophere mycoflora of capsicum annuum l.	45
46.	2019-20	Bhartiya Shangrajyache Badalte Swaroop	46
47.		Loksangit (Hariyanavi, Avadhi, Brij bhasa Me)	47
48.		Impingement of literature on films: A Case Study if Deepa Mehta's Element Trilogy	48
49.		Portrayal of Domestic Violence in the film ' Maherchisadi'	49
50.		A Review on E-contain development and E-learning	50
51.		Bhartiya Arthvyavasthet Krishi Setrache mahatva	51
52.		Sol- Gel Fabrication Transition metal Cr3+, Co2+ Doped Lanthanum Ferric Oxide (LFO-LaFeo3) Thin Film Sensors for the detection of Toxic, Flammable Gases A Cooperative Study	52
53.		Positive & Negative Role of Biotechnology in Human life: A Review	53
54.		Computational Insights on Molecular Structure, Electronic Properties and Chemical Reactivity of (E) (4-Chlorophenyl)-(2-Hydroxypheny) Prop-2-en-1One	54
55.		A Review on Distribution and uses of plant Amphibians: Bryophytes	55
56.		A Comprehensive Review on Cadaba Fruitcosa (L.) Druce	56
57.		Variation Of Fungal Population Of Rhizosphere And Soil Mycoflora At Different Growth Period Of CAPSICUM	57

		ANNUUM LINN	
58.	2020-21	Anthracnose disease of Capsicum annuum L.and its bio control management: A Review	58
59.		Allelopathic effects of Celosia Argentina L. on enzyme activity of peroxidase and catalase in germinating seeds of Lens culinary Medic	59
60.		Positive Impacts Of Covid-19 Pandemic On Natural Water Bodies	60
61.		The Binary Oxide NiO-CuO Nanocomposites Based Thick film Sensor for the Acute Detection of Hydrogen Sulphide gas Vapours	61
62.		Screen Print fabricated In^{3+} Decorated perovskite lanthanum Chromium oxide ($LaCrO_3$) Thick film sensors for selective Detection of Volatile petrol Vapours	62
63.		Fabrication of thin film sensors by spin coating using sol-gel LaCrO3 Perovskite material modified with transition metals for sensing environmental pollutants, greenhouse gases and relative humidity	63
64.		Transition Metals Ni2+, Fe3+ Incorporated Modified ZnO Thick Film Sensors to Monitor the Environmental and Industrial Pollutant Gases	64
65.		Status of Life Sciences in Higher Education of India	65
66.		An investigation of Zooplankton diversity in Anjaneri dam, Nashik (M.S.) India	66
67.	2021-22	A review on hydrocarbon producing plants.	67
68.		Kavya Vidha Mein Swatantrata Aandholan	68
69.		Napier Grass (*Pennisetum purpureum*): An Emerging Biofuel Crop	69
70.		Antrashtriya Rajkaran aani Paryavaranya Samasya	70
71.		Pharmacognostic, Phytochemical and Ethnomedicinal Review on *Woodfordia fruticosa* (L.) Kurz.	71
72.		Synthesis of Derivatives of Chlorosubstituted Flavones	72
73.		Gramin vikasacha Sudharith kendriya Drishtikon	73
74.		Antimicrobial, Cytotoxicity and Molecular Docking Study of New Quinoline Schiff Base and its Metal Complexes	74
75.		An Extensive and Intensive investigation of Harmful Invasive Alien Species of Nashik District (M.S.), India	75
76.		Pratition politics: A study of Selected Partition Movies	76
77.		A Proposed Approch for multipath routing in IoT Network using FIS	77
78.		IMPLEMENTATION OF MITIGATING INTERFERENCE BETWEEN MACROCELL AND FEMTOCELL IN USE OF WIRELESS NETWORKS	78
79.		Invasive plant species of Maharashtra state: a review	79

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E-ADVERTISING : ADVANTAGES AND DISADVANTAGES

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Abstract:

This research paper focuses on E-Advertising only. For this secondary data is used from text books, reference books and internet. E-Advertising is also called as Internet Marketing or E-Marketing, Online Marketing or Email Marketing etc. It is a form of advertising and marketing which uses the Internet to deliver promotional marketing messages to costumers. E-Advertising is an essential part of running a successful business in today's digital world. Though, there are some challenges or disadvantages involved in e-advertising, it can be said that it has led to increased transparency and easy to buying and selling products and services. This is the time to show that it is truly beneficial for all.

E-Advertising is becoming a turning point for every kind of business today. Though, it takes time to decide what kind of e-advertising strategy will work for your business concern as it is never certain that the strategy that works for one business organization might not be effective for the other. Today, E- marketing is widely used by organizations and businessman to promote their business. It is one of the most effective and economical techniques of advertising for business. It is also says that though there are some disadvantages, it can be removable easily by accepting the effective technology for it and can be convert the organization in successful business.

Reaching out to consumers and establishing a brand is an important part of succeeding in business. Without advertising solutions, a businessman has a very high chance of failure. E-advertising is a strategy that helps to build up a business reputation and exposure online by using a various internet tools and solutions.

Keywords: E- Advertising, Internet, Customers, Websites, Business, Advertising, E-marketing etc.

Introduction:

Now a day, it is says that the sky is the limit. Because of globalization not only the nations of the world but also the communities of the world have came so closure to each other. E-advertising or Internet marketing is not just selling of product alone but in addition to this it also involves in information about products, advertising, software programs, auction, stock trading, prices, terms & conditions and more.

E-advertising or Internet marketing or E-marketing, refers to advertising and marketing efforts

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भारतीय राजकारणातील विरोधी पक्षांची भूमिका

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देशातील राजकीय प्रक्रियेमध्ये राजकीय पक्ष महत्त्वाची भूमिका बजावतात आधुनिक काळात राजकीय व्यवस्थेमध्ये राजकीय पक्षांना अनन्यसाधारण असे महत्त्व प्राप्त झालेले आहे. त्यांचे अस्तित्व आधुनिक राजकीय व्यवस्थेत अटळ बनलेले आहे. राजकीय पक्ष हा राजकीय सत्ता प्राप्त करुन त्या द्वारे आपली धारणा आणि कार्यक्रम अमलात आणू इच्छिणारे नागरिकांची संघटना असते. लोकशाही देशात निवडणूका हा सत्ता प्राप्त करण्याचा मार्ग असतो. प्रतिनिधीक लोकशाही राज्यात राजकीय पक्षांना महत्त्वपूर्ण भूमिका पार पाडावी लागते. लोकशाही शासन पद्धतीत जनतेने निवडून दिलेल्या प्रतिनिधीमार्फत राज्यकारभार चालतो जनतेच्या समतीतून आणि टीकेतून लोकशाहीचा कारभार चालतो. सर्वोत्तक निवडणूकीत ज्या राजकीय पक्षाला लोकांचा पाठिंबा मिळतो तो पक्ष कायदेमंडळात बहुमत प्राप्त करतो आणि सत्तारी बनतो ज्या राजकीय पक्षांना लोकांचा पाठिंबा कमी प्रमाणात मिळतो तो पक्ष विरोधी पक्ष म्हणून सत्तारुढ पक्षाच्या कार्यावर नियत्रण ठेवतात सत्तारुढ पक्ष लोकमताचा पाठिंबा कायम टिकविण्यासाठी अधिक जबाबदारीने आणि कार्यक्षमतने कारभार पाहतो. तर विरोधी पक्ष लोकमताचा पाठिंबा मिळविण्यासाठी अधिक जागरुकतेने सत्तारुढ पक्षावर अंकुश ठेवण्याची भूमिका बजावीत असतो.

राजकीय पक्षांची संघटना त्यांची ध्येय-धोरणे, सनदशीर मार्गाने सत्ताप्राप्तीसाठी त्यांचे प्रयत्न यामुळे लोकशाही देशातील राजकीय प्रक्रियेला सुव्यवस्थितपणा आणि सुरळीतपणा प्राप्त होतो. प्रस्तुत चर्चासत्रात संसदीय शासन पध्दतीत विरोधी पक्षांची भूमिका यावर उपस्थित सर्व मान्यवर आपले विचार मांडत आहे. विरोधी पक्षाची भूमिकेचा अभ्यास करण्यापेक्षा भारतातील एका विशिष्ट घटकराज्यातील पक्षीय राजकारणाचा अभ्यास करुन तो आपल्या समोर सादर करणे मला अधिक योग्य वाटते. भारतात प्रत्येक घटकराज्यातील पक्षीय राजकारणाचा अभ्यास करतांना प्रादेशिक पक्षाची झालेली निर्मिती, त्या पक्षान केलेले कार्य, मिळविलेली सत्ता, सत्तेचा केलेला वापर, राजकीय पक्षांचा सामाजिक आधार समजवुन घेणे आवश्यक आहे. तेव्हाच त्या पक्षाने संबधीत घटकराज्यात केलेले कार्य समजते. पक्षीय राजकारण समजवून घेण्यासाठी मी आसाम राज्याची निवड केली आहे. आसामच्या राजकारणाचा आढावा घेताना तिथला हिंसाचार, आदिवासी - समुदाय संघर्ष, स्वायत्तावादी आणि स्वातंत्र्यवादी चळवळी यांना पक्षीय राजकारण इतकेच महत्त्व द्यावे लागते. पक्षीय राजकारणाचा विचार केला तर १९८५ पर्यंत काँग्रेस चे प्रभुत्व आणि त्यानंतरच्या काळातील द्विपक्षीय स्पर्धा असे आसामच्या राजकारणाचे दोन टप्पे दाखविता येतात. आसाम आंदोलनामुळे आसामचे राजकारण बदलले दिसुन येते मुलसंघर्षाकडून उघड संघर्षाकडे असा आसामच्या राजकारणाचा प्रवास दिसुन येतो. आसामचे राजकारण आणि हिंसा हे एकमेकास गुतलेले दिसुन येतात. त्यामुळे भारताच्या लोकशाहीला देखील आव्हान निर्माण झालेले दिसुन येते.

आसामची सामाजिक वैशिष्ट्ये:-

खनिज, वन, संपत्ती. ही आसामची नैसर्गिक संपत्ती असली तरी आसमचा गणना मागास राज्यांमध्ये केली जाते. डोंगराळ प्रदेश, सतत चालणारी हिंसा व आंदोलने यामुळे देखील राज्य मागास राहिले आहे. भातशेती व चहाचे मळे ही आसामची प्रमुख उत्पादने आहेत. आसामिया समुदाय, ना - असमिया समुदाय (नेपाळी आसामी बंगाली

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मानवी अधिकार आणि आदिवासी समाज

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मानवी हक्क :

मनुष्याला काही निसर्गसिध्द हक्क असतात ते सर्वच देशांमधील नागरीकांना प्राप्त झाले पाहिजेत या हेतूने मानवी हक्क ही संकल्पना आधुनिक काळात प्रचलीत झाली. जिवीत, उपजीविका यांच्या बरोबरच भाषण, संघटना आणि धर्म श्रध्दा यांचे स्वातंत्र्य मानवी हक्कामध्ये समाविष्ट आहे. संयुक्त राष्ट्र संघटनेच्या घोषणेतही मानवी हक्कांचा स्पष्ट उल्लेख आढळतो. तिसऱ्या जगातील अनेक देशांमध्ये मानवी हक्कांचा संकोच होताना दिसते. अमेरीकेतही रेड इंडीयन आणि कृष्ण वर्णीयांच्या मानवी हक्कांची पायमल्ली होताना दिसते.

मानवीय अधिकारांचे दोन प्रकार पडतात :

१) **नैतिक अधिकार :** प्रचलीत नितीमत्तेच्या ज्या कल्पना असतात त्यावर आधारीत केलेली मागणी म्हणजे नैतिक अधिकार होय. समाजातील नीती नियमांचा पाठींबा असतो. राज्याची दंडशक्ती उभी नसते.

२) **वैधानिक / कायदेशीर / नागरी अधिकार :** राज्याच्या कायद्याद्वारे अधिकार मिळतात राज्याची दंडशक्ती उभी असते.
अ) सामाजिक अधिकार
ब) राजकीय अधिकार

अ) सामाजिक अधिकार : जीविताचा अधिकार, व्यक्ती स्वातंत्र्याचा अधिकार, विचार करण्याचा व ते विचार व्यक्त करण्याचा अधिकार, संपत्तीचा अधिकार, धार्मिक अधिकार, अन्य अधिकार त्यामध्ये शिक्षण घेण्याचा संचार करण्याचा, वास्तव्य करण्याचा, संघटना स्थापन करण्याचा, व्यवसाय स्वातंत्र्याचा अधिकार अभिप्रेत आहे.

ब) राजकीय अधिकार : मतदान करणे, सामाजीक संपत्तीचे रक्षण करणे.

२) आदिवासी सद्यस्थिती :

भारतातील आदिवासींची राज्यवार लोकसंख्या लक्षात घेतली तर दिसून येते की १९८१ साली एकदंर लोकसंख्येच्या प्रमाणात आदिवासींचे प्रमाण ७.७६% होते ते १९९१ च्या जनगणनेत ८.०८% इतके वाढले. ५०% पेक्षा अधिक लोकसंख्या आदिवासी असलेली राज्ये अरुणाचल प्रदेश, मेघालय, मीझोराम, नागालँड हि आहेत. दादरा नगर हवेली आणि लक्षद्वीप या केंद्रशासीत प्रदेशांचा यात समावेश आहे. १० टक्यांपेक्षा आदिवासींचे प्रमाण जास्त असणारी राज्ये आसाम, गुजरात, मध्यप्रदेश, मनीपुर, ओरीसा, राजस्थान, सिक्कीम, त्रिपुरा ही आहेत. अंदमान व निकोबर, दमन दिव ही केंद्र शासीत प्रदेश त्यामध्ये आहेत. महाराष्ट्र, बिहार, आंध्रप्रदेश, तामिळनाडू, केरळ या राज्यांमध्ये आदिवासींच्या लोकसंख्येचे प्रमाण १० टक्यांहून कमी असले तरी या राज्यांमधील काही भाग, काही जिल्हे हे आदिवासी बहुल आहेत.

३) नर्मदा बचाव आंदोलन :

नर्मदा बचाव आंदोलन सुरु होऊन पंधरा वर्ष पुर्ण झाली आहेत. महाराष्ट्र, मध्यप्रदेश व गुजरात या तीन राज्यांमधील २४५ खेंड्यातील जवळपास ४०,००० कुटूंबातील लाखो लोकांना विस्थापीत करणाऱ्या सरदार सरोवर प्रकल्पाला विरोध करणारे हे आंदोलन १९८६-८७ साली स्थानिक पातळीवर प्राथमिक अवस्थेत सुरु होऊन वेगवेगळ्या टप्यातुन विकसित होत गेले. पंधरा वर्ष एका प्रश्नाभोवती आंदोलन सुरु आहे. स्वातंत्र्योत्तर काळात एखाद्या प्रश्नावरुन सतत पंधरा वर्ष भावनिक आव्हानाचा आधार न होता, लोकांना न भडकविता चळवळ चालविण्याचे एक असाधारण उदाहरण म्हणुन नर्मदा बचाव आंदोलनाचा उल्लेख करावा लागेल.

सर्वोच्च न्यायालयाच्या निर्णयामुळे मोठ्या पराभवाचा सामना या चळवळीला करावा लागत आहे. गेल्या काही वर्षात जनहित याचिका व अन्यकारणाने न्यायालये जास्त सक्रिय झाली आहे. बऱ्याच जणांनी सक्रिय न्यायालयाचे स्वागत केले आहे. परंतु सरदार सरोवराच्या प्रश्नाच्या संदर्भात न्यायालयाच्या निर्णयाचा पुर्नविचार करण्याची वेळ

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भारत व चीन संबंधाचे बदलते संदर्भ

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भारत - चीन युध्दाला २०१२ मध्ये ५० वर्षे पूर्ण झाली. या निमित्ताने या दोन राष्ट्रातील संबंधावर परत नव्याने चर्चा सुरु झाली आहे. बहुतांशी रोख हा संबंधातील वर्तमान प्रवाहांचा विचार न करता भारताला त्या युद्धात घ्यावी लागलेली माघार, भारताच्या ताब्यातील उत्तर-पुर्व सीमेलगतच्या सामरिकदृष्टया महत्वाच्या भूभागावर चीनने मिळविलेला कब्जा, त्यामुळे दोन्ही देशात निर्माण झालेला तणाव आणि भारताच्या पराभवास तत्कालीन पंतप्रधान नेहरु कसे जबाबदार होते व हिंदी-चीनी भाई-भाई या त्यांच्या धोरणाने भारत कसा तोंडघशी पडला यावर असलेला दिसून येतो. त्या पराभवाची छायाइतकी गडद आहे की, आज ही परस्पराविषयी अविश्वास हाच भारत चीन संबंधाचा पाया आहे/असावा असे मानण्याकडे कल दिसतो. सीमाप्रश्नाच्या संदर्भातील चीनची आजपर्यंतची आक्रमक भूमिका लक्षात घेता चीनविषयी सतर्कता आवश्यक आहेच. पण त्याच बरोबर हेही लक्षात ठेवले पाहिजे की, आजच्या जागतिकीकरणाच्या युगात चीनसंबंधी धोरण आखतांना चीनचा एक शेजारी राष्ट्र किंवा शत्रूराष्ट्र याच दृष्टीकोनातून विचार करुन चालनार नाही तर जगाच्या नकाशावरील चीनसारख्या एका महत्तवपूर्ण राष्ट्राशी महासत्तेची आकांक्षा बाळगणाऱ्या भारताचे कसे संबंध असावेत असा विचार करणे अधिक संयुक्तिक ठरेल. त्याच अनुषंगाने चीन व भारत यामधील सद्य संबंधाचा व त्यामागील संदर्भाचा उहापोह करणे व भविष्यकाळातील संबंधांचा वेध घेणे हा प्रस्तुत लेखाचा उद्देश आहे.

परराष्ट्र धोरणाच्या बदलत्या दिशा :

स्वातंत्र्यपूर्व कालखंडापासूनच भारताचे परराष्ट्र धोरणाला पहिला धक्का चीनबरोबरच्या युध्दाने बसला. भारताचे परराष्ट्र धोरण वास्तवदर्शी होण्यास या युध्दातील भारताचा पराभव कारणीभूत ठरला. या नंतरच्या काळात सीमासुरक्षा, संरक्षण सज्जता. सैनयशक्तीचा विकास यांना परराष्ट्र धोरणात महत्वाचे स्थान मिळाले. १९६२ च्या युध्दानंतर युध्द यामुळे चीन व पाकिस्तानची वाढत चाललेली मैत्री, भारत पाकिस्तान युध्द यामुळे चीन व भारत यांच्यात विश्वासाचे वातावरण निर्माण होऊ शकले नाही. जवळजवळ १५ वर्ष भारत व चीन यांच्या मधील संबंध ठप्प होते. वाजपेयी परराष्ट्रमंत्री असतांना त्यांनी १९७७-७८ व त्यानंतर राजीव गांधी १९८५ नतर यांनी चीनशी राजनैतिक व शिखर पातळीवर संबंध प्रस्थापित करण्यात पुढाकार घेतला तो काही प्रमाणात यशस्वी झाला.

या कालखंडातील भारताच्या परराष्ट्र धोरणाचे आणखी एक वैशिष्ट्ये म्हणजे भारताने शेजारी राष्ट्रांशी संबंध प्रस्थापित करतांना आर्थिक व व्यापारी संबंधांना कधीच प्राधान्य दिले नाही. किंबहुना स्वातंत्र्या नंतर जवळजवळ ४० वर्षे भारताचे परराष्ट्र धोरण हे आर्णिक हितसंबंध चौकटीबाहेर ठेवूनच मांडले गेले. या पार्श्व भूमीवर तिबेटसंदर्भातील वाद, आक्साय चीन या भूभागावरील चीन्चे नियंत्रण आणि चीनची पाकिस्तान व अमेरिकेश वाढलेली जवळीक हा भारताच्या सुरक्षिततेलाच धोका असल्यामुळे तो नजरेआड करुनचीनशी व्यापारी संबंध प्रस्थापित करण्याचा विचारही केला गेला नाही.

भारत चीन संबंध वृद्विंगत होण्यास खरी सुरुवात झाली ती शीतयुद्वानंतरच्या काळात, शीतयुद्वोत्तर काळा आंतरराष्ट्रीय राजकारणात व अर्थकारणात अनेक बदल झाले. या बदलांचा साकारात्मक परिणाम भारत-चीन संबंधावरही झाला. १९८० च्या दशकातच चीनने आर्थिक आघाडीवर आपले दरवाजे खुले करण्यास सुरुवात केली होती. १९९० च्या सुरुवातीला भारतामध्ये आर्थिक सुधारणा, खुली अर्थव्यवस्था व उदारीकरणाची प्रक्रिया सुरु झाली. आर्थिक आघाडीवर दोन्ही देश भरभराटीला. यामुळे शीतयुद्वानंतर परस्परांशी व्यापारी संबंध प्रस्थापित करण्याची गरज दोन्ही देशांना भासू

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Screening of endophytic fungal extract of *Calotropis procera* for insecticidal activity against *Callosobruchus chinensis* L. (Coleoptera: Bruchidae)

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Abstract
The isolation and insecticidal activity of endophytic fungal extract of leaf and seed of *Calotropis procera* against pulse beetle, *Callosobruchus chinensis* were studied. Endophytic fungi were isolated from the freshly collected leaf and seed of *Calotropis procera* and subcultured. The various concentrations of methanol and ethyl acetate crude endophytic fungal extracts were tested against *Callosobruchus chinensis*. The percent mortality was recorded after 96h. The insecticidal activity of the endophytic fungi isolated from leaf of *Calotropis procera* were (LD_{10}= 28.02mg/kg, LD_{50}= 83.89mg/kg) in methanol and (LD_{10}= 30.63mg/kg, LD_{50}= 121.6mg/kg) in ethyl acetate respectively. The fungi isolated from seed of *Calotropis procera* were (LD_{10}= 38.86mg/kg, LD_{50}= 91.64mg/kg) in methanol and (LD_{10}= 51.87mg/kg, LD_{50}= 124.8mg/kg) in ethyl acetate respectively. The mortality increases with increase in concentration of endophytic fungi. The methanol solvent extract showed more insecticidal property against *C. chinensis* due to the secondary metabolites of endophytic fungi. Statistical variance, 95% confidence limits and regression equations are presented.

Keywords: *Callosobruchus chinensis*, endophytic fungi, mortality, *Calotropis procera*

1. Introduction
The crop and store grain pest problems are nearly as old as the beginning of crop cultivation. With a greater awareness of hazards associated with the use of synthetic organic insecticide there has been an increase need to explore suitable alternative methods of storage pest control [33]. Storage grains are protected by different plant materials from pest infestation. Natural products in their crude form or plant extract provide unlimited opportunities as biopesticide. Heavy infestation of pulse beetle, *Callosobruchus chinensis* causes qualitative and quantitative losses in store grains [3, 21, 34, 36, 41, 46]. Therefore various plants and their derivatives are effective and used for controlling the storage pest [35].
Calotropis procera is the source of ascaricidal [12], schizonticidal, nematocidal [32, 37], anti-microbial [26], antihelmintic, molluscicidal [20], insecticidal, anti-inflammatory, anti-diarrhoeal, larvicidal [19, 22, 24, 30]. There is first report on the insecticidal and larvicidal effects in the latex of *Calotropis procera* [19]. Due to larvicidal compounds of latex of *Calotropis procera* caused 100% mortality in third instar larvae of *Aedesa egypti* after 5 minutes [38].
Endophytes are microorganisms that grow within plants without causing any obvious symptoms of infection or disease [18, 25]. Some of the endophyte microorganisms are thought to protect their host from attack of fungi, insect and mammals by producing secondary metabolites. Therefore plant associated microbes has explore the potential in pest control. The endophytic fungal metabolites showed pesticidal activity against major groundnut defoliator *S. litura* [31]. In several ryegrasses that high fungi infection is correlated with a decrease in the attack frequency of the Argentine stem weevil, *Listronotus bonariensis* [17]. Several authors studied that the role of endophytic fungi in the control of insects [3, 5, 16, 43].
The present study was undertaken for screening of endophytic fungi isolated from leaf and seed of *Calotropis procera* for insecticidal activity of *Callosobruchus chinensis*.

2. Materials and Methods
2.1 Insect culture
Infected seeds were obtained from the Grain market, Aurangabad and cultured the insect.

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Comparison of Development of Government Healthcare Facilities In Tribal And Non Tribal Region Of Nashik District (Maharashtra) India

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ABSTRACT:

Uniform distribution of any service or facility is always a challenging job as the physical and cultural factors are not homogeneous. Providing Health care facility to a large population which is distributed in variety of landforms or physical region is not easy task. Study of health care services is one of the major aspects of Health Geography. Many studies have been made in recent time at macro or micro level. ***Akhtar (1978)[1]*** *have been examined the spatial distribution and growth of healthcare services in Rajasthan. In Maharashtra, socio economic abstract were publishes regularly (yearly) for every district, which provide important statistics of health facilities. By its study one can understand the spatio-temporal changes in the development of health care facilities. In present paper an attempt has been made to understand the development of government health care facilities in the span of 40 years i.e. 1971 to 2010. Tahsil has been taken as a study unit. All 15 tahsil were grouped in to tribal and non-tribal tahsil on the basis of tribal population percentage. By using composite score method all tahsil were categorized in to 3 levels of development. It is found that initially Government health facilities are not distributed well in tribal part but after 40 years tribal tahsil shows remarkable increase in this field. Few tahsil have yet to develop fully in this manner. The norms suggested for medical facilities by Bhore committee or National health plan 1983 should be implemented in near future.*

KEY WORDS: *Government health care facilities, health care norms, tribal tahsil,*

INTRODUCTION:

Socio-cultural and economic framework determines health condition of the population. (Akhtar 2009)[2] After independence lot of efforts were made to improve health standards of the rural and tribal areas. But it is common phenomena that resources are mostly diverted towards towns and cities than the rural and tribal parts. The health services show a lopsided pattern with expenditure concentrated on sophisticated facilities in the towns, leaving the rural majority practically unserved.(Akhtar 2009)[3] Such condition also prevails in Nashik district of Maharashtra, which is the study area for this paper. Western part is characterized by Sahyadrian hill ranges. This part has maximum concentration of tribal population. An attempt has been made to find out the development process of government health care facilities in 5 tribal tahsil as well as 10 other non tribal tahsil of this district.

Nashik district is situated in Tapi and Godavari basin. It lies between 19° 45` to 20° 45` north latitude and 73° 30' to 74° 45' east Longitude [5](Fig. No.1). There are 15 tahsil included in the Nasik District. Nashik district has three major divisions based on socio-cultural and physical characteristics. The main

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Research Article

Insecticidal activity of endophytic fungal extract of *Jatropha curcas* against *Callosobruchus chinensis* (Coleoptera: Bruchidae)

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Callosobruchus chinensis, Endophytic fungi, mortality

Abstract

Endophytic fungi are microorganisms that live inside the plant without causing any overt negative effect on plant tissues; rather they protect the host plant from pests and diseases. The insecticidal activity of endophytic fungal extract of leaf and seed of *Jatropha curcas* against pulse beetle, *Callosobruchus chinensis* were studied. Endophytic fungi were isolated from the leaf and seed of *Jatropha curcas*. The various concentrations of methanol and ethyl acetate crude endophytic fungal extracts were tested against *Callosobruchus chinensis*. The percent mortality was recorded after 96h.The insecticidal activity of the endophytic fungi isolated from leaf of *Jatropha curcas* were (LD_{10}= 13.62mg/kg, LD_{50}= 42.32mg/kg) in methanol and (LD_{10}= 17.29mg/kg, LD_{50}= 64.76mg/kg) in ethyl acetate respectively. The fungi isolated from seed of *Jatropha curcas* were (LD_{10}= 6.89mg/kg, LD_{50}= 27.49mg/kg) in methanol and (LD_{10}= 10.87mg/kg, LD_{50}= 43.23mg/kg) in ethyl acetate respectively. The mortality increases with increase in concentration of endophytic fungi. The methanol solvent extract showed more insecticidal property against *C. chinensis* due to endophytic secondary metabolites. Statistical variance, 95% confidence limits and regression equations are presented.

INTRODUCTION

The crop and store grain pest problems are nearly as old as the beginning of crop cultivation. With a greater awareness of hazards associated with the use of synthetic organic insecticide there has been an increase need to explore suitable alternative methods of pest control. Farmers use different plant materials to protect store grain pest from pest infestation. Natural products in their crude form or plant extract provide unlimited opportunities as biopesticide. Heavy qualitative and quantitative losses occur due to heavy infestation of pulse beetle, *Callosobruchus chinensis* in the store grains. (Raja *et al.*, 2008; Patel 2011,Sagheer *et al.*, 2013; Islam *et al.*, 2013; Tesfu and Emana 2013; Atwal and Dhaliwal 2005). Rahman and Talukder (2006) evaluated the various plants and their derivatives for controlling the storage pest.

Jatropha curcas is studied for developing bio-fuel technology as well as for other beneficial use, like antimicrobial and pesticidal activity. Insecticidal activity of the plant extract has been reported by several workers against storage pests (Kumar and Sharma, 2008; Ohazurike *et al.*, 2003; Adebowale and Adedire 2006; Boateng and Kusi 2008).

Endophytes are microorganisms that grow within plants without causing any obvious symptoms of infection or disease (Lugtenberg *et al.*, 2001; Ge *et al.*, 2007). Some of the endophyte microorganisms are thought to protect their host from attack by fungi, insect and mammals by producing secondary metabolites.

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DETERMINATION OF SOIL PARAMETERS IN AND AROUND NANDGAON TAHSIL (MS), INDIA

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Abstract

The physicochemical parameters have been studied in the present research work. Soil contain N,P,K macronutrients along with Ca, Mg, B, C, Pb, Cu, Cl as micronutrients. Soil samples were collected from different regions of Nandgaon Tahsil in Nashik District (Maharashtra) India. The parameters like pH, TDS, electrical conductivity, calcium carbonate, gypsum, acidity/alkalinity, chloride, sulphides were studied from the collected soil samples. pH, and electrical conductance were measured by pH meter and conductometer respectively while other parameters were determined by different titration methods.

Keywords: *TDS, EDTA, gypsum, bulk density, calcium carbonate.*

Introduction: Farming is the foremost occupation in India. Agricultural sector has vital role in Indian economy. More than 70% of the population depends on the income obtained from agriculture. To provide the sufficient food for the higher population is challenging to agriculture. Agriculture in India plays a crucial role in solving the problems of food for its ever increasing population, especially when the available land for agriculture is decreasing by days because of urbanization. Farmers are using high percentage of inorganic fertilizers to achieve the highest yield. These inorganic fertilizers contain macronutrients and micronutrients. But, the excess use of chemical fertilizers changes the composition of soil and affects the natural productivity [3].

The major constituents present in the soil required for the crop growth are N, P, K and minor constituents are Ca, Mg, B, C, Cu, Fe, and Mn. The proportion of all the constituents in appropriate manner makes the soil fertile while imbalance of these nutrients can destroy the productivity of soil [4]. The percentage of primary and secondary nutrients in the soil has been detected by some researchers [1, 2]. Along with this nutrients pH, soil salinity, alkalinity, TDS plays an important role for soil productivity. Heavy metals presents in the soil may contaminate the vegetables or crops grown in the soil [5].

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INSECTICIDAL EFFICACY OF ENDOPHYTIC FUNGAL EXTRACT OF *ANNONA SQUAMOSA* AGAINST *CALLOSOBRUCHUS CHINENSIS* (COLEOPTERA: BRUCHIDAE)

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ABSTRACT

Endophytic fungi are microorganisms that live inside the plant without causing any overt negative effect on plant tissues; rather they protect the host plant from pests and diseases. The insecticidal activity of endophytic fungal extract of leaf and seed of *Annona squamosa* against pulse beetle, *Callosobruchus chinensis* were studied. Endophytic fungi were isolated from the leaf and seed of *Annona squamosa*. The various concentrations of methanol and ethyl acetate crude endophytic fungal extracts were tested against *Callosobruchus chinensis*. The percent mortality was recorded after 96h. The insecticidal activity of the endophytic fungi isolated from leaf of *Annona squamosa* were (LD_{10}= 35.99mg/kg, LD_{50}= 70.03mg/kg) in methanol and (LD_{10}= 70.57mg/kg, LD_{50}= 112.4mg/kg) in ethyl acetate respectively. The fungi isolated from seed of *Annona squamosa* were (LD_{10}= 12.46mg/kg, LD_{50}= 37.33mg/kg) in methanol and (LD_{10}= 33.72mg/kg, LD_{50}= 65.11mg/kg) in ethyl acetate respectively. The mortality increases with increase in concentration of endophytic fungi. The methanol solvent extract showed more insecticidal property against *C. chinensis* due to endophytic secondary metabolites. Statistical variance, 95% confidence limits and regression equations are presented.

Figures : 02 References : 47 Tables : 02

KEY WORDS : *Annona squamosa*, *Callosobruchus chinensis*, Endophytic fungi, Mortality

Introduction

The crop and store grain pest problems are nearly as old as the beginning of crop cultivation. With a greater awareness of hazards associated with the use of synthetic organic insecticide there has been an increasing need to explore suitable alternative methods of pest control. Farmers use different plant materials to protect store grain pest from pest infestation. Natural products in their crude form or plant extract provide unlimited opportunities as biopesticide. Heavy qualitative and quantitative losses occur due to heavy infestation of pulse beetle, *Callosobruchus chinensis* in the store grains[3, 18, 32, 34, 37, 44]. Various plants and their derivatives are used for controlling the storage pest [33].

Some species of Annonaceae have been used traditionally as insecticides. The powdered seeds and leaf juices of *Annona sp.* are used to kill head lice and body lice[28,40]. The annonaceous acetogenins extracted from tree leaves, bark and seeds have pesticidal or insect antifeedant properties[2, 27, 35, 36].

Endophytes are microorganisms that grow within plants without causing any obvious symptoms of infection or disease[15,22]. Some of the endophyte microorganisms are thought to protect

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Note

A simple and efficient one pot synthesis of 2,4 dioxopyrimidine carbonitrile and 4-oxo-2-thioxopyrimidine carbonitrile derivatives using ammonium chloride under solvent free conditions

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Various substituted 4-oxo-2-thioxopyrimidine and 2,4-dioxopyrimidine derivatives have been synthesized by ternary condensation of ethyl cyanoacetate, aldehyde and thiourea/urea by using ammonium chloride. Structures of all the products are supported by their spectral data.

Keywords: Bigenelli reaction, ammonium chloride, ethyl cyanoacetate, aldehydes

In a few decades Bigenelli reaction has attracted considerable attention for synthesis of pyrimidines which have broad spectrum of biological activity[1-13] such as antiviral, antibacterial, anticancer, antifungal, antioxidant, antimalarial, anti-HIV, sedatives, anticonvulsant, anti-histamic agent, anti-hypertensive, anti-inflammatory, anti-cancer and calcium channel blockers. On account of these reasons, synthesis of substituted dihydropyrimidenes is of great interest.

Kambe *et al.*[14] in 1979 documented the synthesis of 4-oxo-6-substituted phenyl-2-thioxo-1,2,3,4-tetrahydropyrimidine-5-carbonitrile by ternary condensation of aromatic aldehyde, thiourea and ethyl cyanoacetate in ethanol using potassium carbonate as a base. But it suffers from several drawbacks such as long reaction time, low yield and harsh reaction conditions. Several other important synthesis protocols have been reported such as KOH in dry methanol (12 h)[15], $Mg(OMe)_2$ (5-7 h)[16], sodium ethoxide (48 h)[17,18], microwave and ultrasonication[19], piperidine (12 h)[20] and microwave radiation[21]. Many of these methods involve long reaction time, anhydrous solvents, stiocheometric amounts, hazardous radiation, use of costly apparatus and give unsatisfactory yields. Therefore in our present work we have used the least expensive and easily available catalyst as well as mild and neutral reaction conditions for the synthesis of 2,4-dihydropyrimidine carbonitrile.

Hence we wish to report the results obtained from study of preparation of 2,4-dihydropyrimidine carbonitrile and its derivatives with NH_4Cl as easily available catalyst under neutral and solvent free conditions (Scheme I). The procedure gives product in good yield and avoids the problems such as cost, handling and safety associated with the use of the solvent.

The method has decreased reaction time because of the increase in the reactivity of the reactant in the solid state at the reaction temperature of 100°C.

Experimental Section

All the reagents used are of research grade purchased from SD Fine and Merck. Melting points were recorded on open capillary method and are uncorrected. The melting points were compared with literature report. Synthesized products were characterized by IR and ^{1}H NMR. Infrared (IR) spectra were recorded on Shimadzu FTIR spectrometer. ^{1}H NMR spectra were recorded on Bruker Advance II (400 MHz) using DMSO-d_6 as solvent.

To increase the yield, the reaction was performed by using varied stoichiometric ratio of reagents. Excellent results were obtained with 0.5:1:1:1.5 ratio of ammonium chloride, aldehyde, ethyl cyanoacetate and urea/thiourea. From Table I, aldehyde, ethyl cyanoacetate, urea/thiourea, in presence of NH_4Cl gave corresponding 2,4-dioxopyrimidine carbonitrile and 4-oxo-2-thioxopyrimidine carbonitrile under neutral conditions in good yield after 3 h. Futhermore, aromatic aldehydes carrying either electron donating or electron withdrawing substituents react well giving moderate to excellent yield.

General procedure for synthesis of 2,4-dioxopyrimidine carbonitrile and 4-oxo-2-thioxopyrimidine carbonitrile

A mixture of benzaldehyde (0.30 g, 2 mmol), ethyl cyanoacetate (0.26 g, 2 mmole), thiourea (0.18 g, 3 mmole) and NH_4Cl (0.05 g, 0.8 mmol) was heated under stirring at 100°C for 3 h. After cooling, solid

14

भारत आणि चीन संबंधाचे बदलते संदर्भ

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प्रस्तावना

आजच्या जागतिकीकरणाच्या युगात चीन संबंधी धोरण आखताना चीनचा एक शेजारी राष्ट्र किंवा शत्रू राष्ट्र याच दृष्टीकोनातून विचार करून चालणार नाही.तर जगाच्या नकाशावरील चीनसारख्या महत्वपूर्ण राष्ट्रशी महासत्तेची आकांक्षा बाळगणाऱ्या भारताने कसे संबंध असावेत असा विचार करणे अधिक सयुक्तिक ठरेल. त्याच अनुषंगाने चीन व भारत संबंधाचा व त्यामागील संदर्भाचा उहा पोह करणे भविष्य काळात हे संबंध कसे असतील याचा वेध घेणे हा प्रस्तुत लेखाचा उदेश आहे

चीनची अर्थव्यवस्था हि वेगाने विकसित होणारी अर्थ व्यवस्था आहे. जपानला मागे टाकून चीनने दुसऱ्या क्रमांकाचा अर्थ व्यवस्था होण्याचा मान मिळविला आहे. वेगाने विकसित होण्याऱ्या चीनला भारतासारख्या मोठ्य बाजारपेठेची आवशकता आहे. भारतालाही आर्थिक विकासासाठी मोठ्य प्रमाणात विदेशी गुंतवणूक आवश्यक आहे. माहिती तंत्रज्ञानाच्या क्षेत्रात भारत आघाडीवर आहे यांची जाणीव चीनला आहे.याचा फायदा भारताने करून घेतला पाहिजे. भारताच्या पराष्ट्र धोरणाची एक महत्वाची मर्यादा म्हणजे शेजारील राष्ट्राच्या हालचाली व अर्थकारणाची अनास्था. पाकिस्तान व्याप्त काश्मीरमधील गिलगीट चीनने सन 2015 मध्ये नेपाळ मधील उर्जा निर्मिती क्षेत्र, शेवया बनविण्याचे कारखाने, मांसाहार प्रक्रिया उद्योग यात गुंतवणूक केली आहे.सन २२००६अमध्ये नेपाळच्या एकून व्यापारातील ६०% हिस्सा भारताशी होणाऱ्या व्यापार होता.तो घसरून५३% झाला.उलट चीनचा हिस्सा ३% वरून ३१% झाला आहे.आशिया खंडात वर्चस्वासाठी भारताच्या शेजारी राष्ट्र्ना आपल्या गटात समाविष्ट करण्याचा चीनचा प्रयत्न आहे.पाकिस्तानातील ग्वादर बंदराचा विकास, श्रीलंकेतील हबंनटोटा बंदर, बांगलादेशातील चितगाव बंदर, म्यानमारमधील क्याफू बंदराच्या विकासाचे कंत्राट चीनने मिळवले आहे. आशियातील राष्ट्रांना आपल्या बाजूने वळून भारताभोवतीचा वेळखा घट्ट करण्याचा चीन प्रयत्न करतो आहे. चीनच्या या धोरणाला स्ट्रींग ऑफ पस असे म्हटले जाते.भारताने हे वेळीच ओळखायला हवे चीनच्या संदर्भात धोरण आखताना भारताने दक्षिण आशियावरील नियंत्रण व आर्थिक हितसंबंधाचा विचार केला पाहिजे.

पराष्ट्र धोरणाच्या बदलत्या दिशा

स्वातंर्त्यपूर्व कालखंडापासूनच भारताचे पराष्ट्र धोरण आदर्शवादी राहिले आहे. भारताचे धोरण हे शांततापूर्ण सहकार्य व परस्पर विश्वास यावर आधारलेले आहे. भारताचे धोरण जरी आदर्शवादी असले तरी चीनने भारताच्या पराष्ट्र धोरणाला पहिला धोका १९६२ च्या युद्धाने दिला. १९६२ च्या युद्धानंतर चीन व पाकिस्तानची वाढत चाललेली मैत्री भारत पाक युद्ध यामुळे चीन व भारत यांच्यात विश्वासाचे वातावरण निर्माण होऊ शकले नाही जवळजवळ हा १५वर्ष भारत व चीन यांच्यामधील संबंध ठप्प होते. वाजपेयी पराष्ट्र मंत्री असताना त्यांनी (१९७७ –१९७८) व त्यानंतर राजीव गांधी (१९८५) नंतर त्यांनी चीनशी राजनैतिक शिखर पातळीवरील संबंध प्रस्थापित करण्यात पुढाकार घेतला,तो काही प्रमाणात यशस्वी झाला. या कालखंडातील भारताच्या पराष्ट्र धोरणाचे आणखी एक वैशिष्टे म्हणजे भारताने शेजारी राष्ट्रांशी संबंध प्रस्थापित करताना आर्थिक व व्यापारी संबंधाना कधीच प्राधान्य दिले नाही.भारत चीन संबंध वृद्धिगत होण्यास खरी सुरवात झाली ती शीतयुद्ध नंतर. शीतयुद्धोत्तर काळात आंतरराष्ट्रीय राजकारणात व अर्थकारणात अनेक बदल झाले या बदलांचा सकारात्मक परिणाम भारत चीन संबंधावरही झाला. १९८० च्या दशकात चीनने आर्थिक आघाडीवर आपले दरवाजे खुले करण्यास

SANITATION: A NEED FOR SUSTAINABLE DEVELOPMENT

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Introduction:

Sanitation is includes management of human excreta, solid waste and drainage. Sanitation generally refers to the provision of facilities and services for the safe disposal of human urine and feces. Inadequate sanitation is a major cause of disease world-wide, on the other hand improving sanitation is known to have a significant beneficial impact on health both in households and across communities. The word 'sanitation' also refers to the maintenance of hygienic conditions, through services such as garbage collection and wastewater disposal. The UN-WHO Joint Monitoring Programme for Drinking Water Supply and Sanitation (JMPDWSS, 2008, 2010) defines an "improved" sanitation facility as one that hygienically separates human excreta from human contact. These include facilities that flush or pour-flush into a piped sewer system, septic tanks, or pit latrines, as well as ventilated improved pit latrines (also known as VIP latrines) and pit latrines with slab or composting toilets. "Unimproved" sanitation facilities include defecation in the open, bucket or hanging latrines, open pit latrines or those without a slab, and facilities flushing or pour-flushing into open drains or open areas (that is, not into a piped sewer system, septic tank, or pit latrine). Shared toilets are also considered unimproved facilities. It is not only a deficit of sanitary toilets that constitutes inadequate sanitation, but also the unsafe disposal of human excreta and, most important, the whole range of unhygienic practices that break down the separation of human excreta from human contact and thus expose people to fecal-oral pathogens. The main objective of a sanitation system is to protect and promote human health by providing a clean environment and breaking the cycle of disease. Most Indian's still do not have access of basic sanitation facilities. Rural sanitation courage was only 21% in 2008 according to UN-WHO joint monitoring program. According to researchers research in rural area of Nashik district sanitation coverage is only 38% in 2016. Sanitation is not a new concept for India, from ancient period cleanliness has got importance. The Indus valley is an example of system for sanitation and drainage. Also in the Chanakya's "Arthshastra" mention the contents in detail of hygiene and cleanliness. The Massage of cleanliness has been carried forward from year by year. The first five year plan includes the policy for water supply and sanitation. Since 1951 rural sanitation were added to the national agenda for human development. Indian government was focused most to the sanitation between periods of world water decade 1980. The government of India started Central rural sanitation programme (CRSP) in 1986 to provide sanitation facilities in rural areas. The program was supply driven, which was provides infrastructural facilities. But this approach was criticized due to very slow grow of sanitation facilities in 1990 to 2000. So that the supply driven central rural sanitation programme replaced by Total Sanitation campaign in 1999, which is based on demand driven approach. Total sanitation campaign emphasized more on information, Education and Communication, human resource development, capacity development activities to increase awareness among the rural people and generation of demand for sanitary facilities. Nirmal Gram purskar was introduced in October 2003, for the purpose of promoting collective community action through sanitation. NGP awards were given to districts, blocks and village panchayat those have achieved 100% sanitation coverage of individual households, 100% school sanitation coverage and free from open defecation and clean environment. The Nirmal Bharat Abhiyan was launched from 1st April, 2012 with the objectives of accelerate sanitary coverage in the rural areas.

व्यक्त केला जात आहे. म्हणून भारताने सशस्त्र शक्तीप्रदर्शन अथवा युध्दाच्या मार्गाने जागतिक प्रश्न सुटणारे नाहीत. हे लक्षात घेणे गरजेचे आहे.

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भारत:पाक संबंधाचे बदलते पैलू

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कला, वाणिज्य व विज्ञान महाविद्यालय
नांदगाव

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प्रस्तावना

आजच्या जागतिकीकरणाच्या युगात पाक संबंधी धोरण आखताना एक शेजारी राष्ट्र किवा शत्रू राष्ट्र या दृष्टीकोनातून विचार करून चालणार नाही. तर भारताचे आशिया खंडातील भोगोलिक, सांस्कृतिक, आर्थिक, व सामरिक स्थान याआधारे धोरण आखले पाहिजे. समान आचार . विचार, समान समाज, समान प्राचीन संस्कृती, समान रीतीरिवाज परंपरा, स्वतंत्र्य लढ्यत सक्रीय सहभाग एवढे असून सुदधा ब्रिटिशांनी आपल्या कुटनीतिक धोरणातून हिंदू . मुस्लीम द्वेषाला खतपाणी घालून १४ ऑगस्ट १९४७ च्या रात्री भारताची संपूर्णता फाळणी केली आणि पाकिस्तान हा देश अस्तित्वात आला.पाकिस्तानने निर्मितीपासूनच सतत भारतविरोधी भूमिका घेतल्याचे दिसून येते. काश्मीर प्रश्न, सीमा प्रश्न, आतंकवाद यामुळे उभय देशतील संबंध तणावाचे राहिले आहे. भारत आशिया खंडात एक महत्वपूर्ण सत्ता म्हणून उदयास येत आहे. भारत माहिती तंत्रज्ञान या क्षेत्रात देखील आघाडीवर आहे. तसेच अर्थकारणातही भारत आघाडीवर आहे. परंतु भारताच्या परराष्ट्र धोरणाची मर्यादा हि की शेजारील राष्ट्राच्या हालचाली व अर्थकारणाबाबतची उदासीनता. पाकिस्तान व्याप्त काश्मीरमधील गिलगीट आणि बाल्टीस्तानच्या भागात चीनच्या मदतीने अनेक प्रकल्प पाकिस्तानने सुरु केले आहेतण्अमेरिका चीनया देशांची वेळोवेळी मदत घेवून भारताचे खचीकरन करण्याचा नेहमीच प्रयत्न केलेला आहे. पाकिस्तान संदर्भात धोरण आखताना भारताने दक्षिण आशिया खंडातील

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'GOODS AND SERVICES TAX' IN INDIAN ECONOMY: A CONCEPTUAL ANALYSIS

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Introduction:-

Tax policies play an important role on the economy. The main source of revenue for government of India is from tax. Direct and indirect taxes are the two main source of tax revenue. When the impact and incidence falls on same person it is called direct tax. When the impact and incidence falls on different person that is when burden can be shifted to other person it is called indirect tax. The indirect tax system is currently mired in multi-layered taxes levied by the Centre and state governments at different stages of the supply chain such as excise duty, octroi,central sales tax (CST) and value-added tax (VAT), among others. First Indirect Tax Reform occurred in India when the Modified Value Added Tax (MODVAT)was introduced for selected commodities in 1986 to replace the Central Excise Duty. The other reforms are the introduction of service tax in 1994, decision to introduce VAT in 1999, introduction of Constitution Amendment Bill on GST in2011.Goods and Services Tax (GST) is most ambitious and biggest tax reform plan, which aims to stitch together a common market by dismantling fiscal barriers between states. It is a single national uniform tax levied across India on all goods and services. In GST, all the indirect taxes will be subsumed under a single régime. The GST taxation laws will put an end to multiple taxes which are levied on different products, starting from the source of manufacturing to reaching the end consumer. GST works on the fundamental Principle of **"One Country OneTax".**

Brief Timeline of GST:-

- GST was first mooted by Dr. Manmohan Singh in the mid-1990s
- The GST was recommended by the Kelkar Task Force on FRBM act in 2005
- In 2011, the Constitution (115th Amendment) Bill was introduced in Parliament to enable the levy of GST.
- In December 2014, the Constitution (122nd Amendment) Bill was introduced in Lok Sabha.
- The Bill was passed by Lok Sabha in May 2015 and referred to a Select Committee of Rajya Sabha for examination.
- The Constitution Amendment Bill for Goods and Services Tax has been approved by the President of India in the Rajya Sabha on August 03, 2016 and August 08, 2016 in Lok Sabha.
- The intention is to replace all the indirect taxes levied on goods and services and implement GST by 1 April 2017. This brings out the significance of the history on Indian taxation system.

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COMPARISON OF F.Y.B.SC.MATHEMATICS & PHYSICS STUDENT STRENGTH OF M. V. P. S. ARTS, COMMERCE & SCIENCE COLLEGE, NANDGAON

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Abstract

This paper Compares F.Y.B.Sc. Mathematics &Physics student strength of M.V.P.S. Arts, Commerce & Science College, Nandgaon. Dataof F.Y.B.Sc. Mathematics &Physics student strength were collected from department of Mathematics &Physics of last six years. The data wereanalyzedusingχ^2(Chi-square) test. Generally,students offering Physicsalso offer Mathematics butthe result is surprisingly different.

Keywords: *-Observed frequency, Expected frequency, χ^2(Chi-square) test, Level of significance, Degrees of freedom.*

Introduction: - Students offer various subjects so they have to deal with idle time. If optional subjects reduced the idle time will bereduced. So I have taken up this problem "Can Mathematicsis made compulsory for students offering Physics?" Thus we test the null hypothesis "Students who offer Physics also offer Mathematics."If Mathematics made compulsory then it will reduce idle time for students which will be used for extra activities.

Collection of data:- Data were collected, of last six years regarding students who chosen Mathematics &Physics, from department of Mathematics &Physics of M.V.P.S. Arts, Commerce & Science College, Nandgaon which was as follows:-

Academic Year	Number of students chosen		Row Total
	Mathematics	Other subject	
2011-12	28	6	34
2012-13	31	22	53
2013-14	42	30	72
2014-15	37	31	68
2015-16	33	34	67
2016-17	50	26	76
Column Total	221	149	**370 (Grand Total)**

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Study of Algal Diversity in the Waldevi dam near Nashik (M.S.), India

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Abstract

Waldevi is an earth fill dam constructed in 1995 on Waldevi River near Pimplad village of Nashik tehsil, about 10 km away from the city. The total capacity of storage is 33,720.00 km^3 (8,089.86 cu mi) and 3,437 km^2 (1,327 sq mi) surface area. A study was made in the year 2016 on the diversity of the algae present in the dam water. An attempt was made to study the seasonal variation of algal diversity. Algae have been collected every month by using standard size plankton net and were identified with the help of literature. In the present study various algal species of Chlorophyceae, Cyanophyceae, and Bacillariophyceae were identified. The members of chlorophyceae were found dominant over other groups. It was observed that with the changing environmental conditions diversity and abundance of the different types of algal flora is influenced.

In the recent past, researchers from various parts of the world concentrated on the study of phytoplanktons because, they are very valuable and important component of the aquatic vegetation[5] as their presence or absence in the water affects different parameters of water and zooplanktons. Phytoplankton has ability to converts solar radiant energy into biological energy through the process of photosynthesis as primary production. It plays an important role in conditioning the microclimate, helps in regulating the atmospheric level of O_2 and CO_2, vital gases for life[6]. Phytoplankton plays an important role as food for herbivorous animals[10].

Phytoplankton is an important component of ecosystem, which responds to ecosystem fluctuations rather rapidly. Plankton occurs in all natural water as well as in artificial impoundments like ponds, tanks, reservoirs, irrigation cannels and rivers. The plankton study is a very useful tool for the assessment of water quality is any type of water body[7].

Many workers including Kamath *et.al.*[1],

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India's Role in South Asian Regional Cooperation

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Introduction:

India has been an active member of South Asian Association for Regional Cooperation (SAARC) and aim and fostering better mutual understanding by supporting people to people initiatives. India offers a great source of potential investment in terms of trade and commerce as it is the sole SAARC member to be sharing brooders' with all 6 member via land or sea.

South Asia as a region distinctly due to its geography, history, economy and culture. Most of the countries of region have a colonial history. The region maintains a distinct unity because of common religious and language. Poverty, population unemployment and slow economic growth rates are the common problems of South Asia. Nearly one billion populations of the seven countries. 20 per cent of world population living on 3.3 per cent of earth surface area. India the core country in south Asia has 72 per cent of the region's area and 77 per cent of its population and generates 78 per cent of the GNP.

In 1979, Bangladesh president Zia-ur-Rahman mooted the idea of South Asian regional co-operation. The Bangladeshi proposal was accepted by India. Pakistan and Shri Lanka during a meeting held in Colombo in 1981. In August 1983, the leaders adopted the declaration on South Asian Regional Cooperation during a summit which was held in new Delhi. The seven South Asian countries, which also included Nepal,Maldives and Bhutan, agreed on five areas of cooperation : Agriculture and rural development, telecommunication, science, technology and metrology, heath and population activities, transport, human resource development. With the formation of South Asian Association for Regional Cooperation (SAARC) at Dhaka on 8 December 1985 has been institutionalised.

Afganistan was added to the regional grouping at the behest of India on November 13,2005, with the addition of Afganistan, the total number of member South Asian nation were raised to eight.

Role of India in SAARC:

India a leader of the non-alignment movement. India also increasingly engages in regional groupings. The South Association for Regional Cooperation (SAARC) supposed to be the main tool for integration in the region. India succeeded in building excellent trade relations and cordial relations social, political and economic front with the countries.

The South Asian region has been an interplay of the politics of no war and no peace syndrome politics of conflict dominates. The centre price of south Asia' political system is the Indo-Pakistan relationship; in the absence of a satisfactory resolution of conflict. If Indo-Pak relation improve, many SAARC nation could benefit from it by improve trade relation and creation beater export markets. SAARC has failed to work toward regional cooperation mainly because India has been reluctant to solve major regional disputes which have given rise to economic and political problems.

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India's Relation with Developed Countries

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Introduction:

Today, no nation in the international community is completely self-reliant, who has to rely on many things, which means that other countries in the world cannot live without each other. India has relations with other nations since ancient times. When India became independent, the world was divided into two groups. India is trying to get help from both groups without staying away from any group. Even in the postwar period, India has had good relations with developed countries.

What are the criteria for developed countries? One such criterion is income per capita, countries with high gross domestic product (GDP), economic criterion is industrialization, and the Human Development Index (HDI), which combines an economic measure, national income, with other measures, indices for life expectancy and education has become prominent. This criterion would define developed countries as those with a very high (HDI) rating.

India-United State relation:

The relationships between India in the days of the British Raj and the US were thin the 1930s and early 1940s the United States gave very strong support to the Indian independence movement in defiance of the British Empire. After Indian independence and until the end of the Cold War, the relationship between the US and India was cold and often thorny. This was due to the closeness of the US towards India's arch-rival Pakistan during the War, with Pakistan joining the US-led Western Bloc in 1954. India's policy of being not aligned with either the US or the Soviet Union, but maintaining close ties with the latter, also impacted relations. The end of the Cold War freed India in some ways from thinking in those terms. There is still resistance to stronger U.S.-Indian relations.

The US is India's second largest trading partner, and India is its 11th largest trading partner. In 2015, the US exported $21.5 billion worth of goods to India, and imported $44.8 billion worth of Indian goods. Major items imported from India include information technology services, textiles, machinery, gems and diamonds, chemicals, iron and steel products, coffee, tea, and other edible food products. Major American items imported by India include aircraft, fertilisers, computer hardware, scrap metal, and medical equipment. The United States is also India's largest investment partner, with a direct investment of $9 billion. (accounting for 9 percent of total foreign investment)

India-Russia relation:

A cordial relationship with India that began in the 1950s represented the most successful of the Soviet attempts to foster closer relations with Third World countries. The relationship began with a visit by Indian Prime Minister Jawaharlal Nehru to the Soviet Union in June 1955 and Khrushchev's return trip to India in the fall of 1955. While in India,

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'गोदान' में महानगरीय और ग्रामीण जीवन की यथार्थ प्रासंगिकता

प्रा.शांताराम वळवी (०९४२०१७९३९४)
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अध्यक्ष, हिंदी विभाग
कला, वाणिज्य एवं विज्ञान महाविद्यालय, नांदगांव जि-नाशिक, महाराष्ट्र-४२३१०६

बीसवीं शताब्दी में हिंदी कथा साहित्य को विश्व साहित्य पटल पर गौरवपूर्ण स्थान दिलाने का श्रेय महान कथाकार प्रेमचंद को जाता है। **'उनका रचना संचार अत्यंत व्यापक रहा है। शिल्पगत और कथ्यगत दोनों दृष्टियों से।'** (१) 'सेवासदन', 'प्रेमाश्रम', 'रंगभूमि', 'कर्मभूमि', 'कायाकल्प', 'निर्मला', 'गबन', 'गोदान' जैसे उपन्यास भारतीय जीवन के विविधारंगी पहलुओं से बहुत गहराई तक जुड़े हुए हैं। प्रेमचंद के हिंदी उपन्यास रचना जगत में कदम रखने से उपन्यास का चेहरा-मोहरा बदल गया। **'नितांत मौलिक विषय, कथ्य, शैली और शिल्पगत विशिष्टता के कारण प्रेमचंद अनोखे उपन्यासकार सिद्ध हुए।'** (२) प्रस्तुत आलेख में भारतीय जीवन का दस्तावेज बना उपन्यास 'गोदान' को चिंतन के केंद्र में रखा है। इसमें महानगरीय और ग्राम्य जीवन से जुड़े वास्तविक पहलुओं को जानने-समझने का प्रयास है। कई हिंदी के विद्वान 'गोदान' को भारतीय जीवन का दस्तावेज मानते हैं। डॉ.गोपाल रॉय का मानना हैं कि, **"गोदान ग्राम जीवन और ग्राम- संस्कृति को उसकी संपूर्णता में प्रस्तुत करनेवाला अद्वितीय उपन्यास है। न केवल हिंदी की वरन् किसी भी भाषा के किसी उपन्यास में ग्रामीण समाज का ऐसा व्यापक, यथार्थ और सहानुभूतिपूर्ण चित्रण नहीं हुआ है। ग्रामीण जीवन और संस्कृति के अंकन की दृष्टि से इस उपन्यास का वही महत्व है, जो आधुनिक पूर्व युग में जन-जीवन की अभिव्यक्ति की दृष्टि से महाकाव्यों का हुआ करता है।"** (३) किंतु 'गोदान' में ग्राम्य संस्कृति ही नहीं अपितु लगभग डेढ़ सौ पृष्ठों में महानगर की कथा का विलक्षण संयोजन किया गया है। इस दृष्टि से 'गोदान' अनेक कोणों से चिंतन के लिए बाध्य करता है। इसीलिए यहाँ ग्राम्य और महानगरीय जीवन का सांस्कृतिक बोध एवं प्रासंगिकता को अनुसंधानात्मक दृष्टि से अंकित किया गया है।

'गोदान' में एक कथा ग्राम्य जीवन से संबंधित होरी-धनिया की कथा है, तो दूसरी ओर महानगरीय जीवन की कथा है, जिसके पात्र है- उद्योगपति खन्ना, मिर्जा खुर्शेद, प्रोफेसर मेहता, डॉक्टर मालती, संपादक ओंकारनाथ आदि। रायपाल अमरपालसिंह इन दोनों कथाओं के सेतु है। एक ओर जमींदार होने से उनका संबंध ग्रामीण जनता से हैं, वहीं दूसरी ओर शहर के उक्त लोग उनके परम मित्र है। रायसाहब सेमरी गाँव के निवासी है। होरी बेलारी ग्राम के साधारण कृषक है। कुछ विशेष अवसरों-उत्सवों आदि आयोजन पर सेमरी गाँव में महानगर के मित्र और इलाके के कृषक आदि इकट्ठा होते हैं। अर्थात महानगर और ग्राम जीवन से संबंधित भाव-संवेग-व्यवहारों का अत्यंत जीवंत चित्रण 'गोदान' में किया गया है। इसी रचनाशीलता का अध्ययन यहाँ किया गया है।

'गोदान' में ग्राम्य कथा कृषक शोषण से संबधित है, जो लगभग दो सौ पृष्ठों में हैं, जबकि महानगरीय कथा विस्तार डेढ़ सौ पृष्ठों में हैं। महानगर की कथा इस उपन्यास में बाहर से थोपी हुई नहीं अपितु उपन्यास के संपूर्ण कथानक में अनिवार्यतः अंतर्निहित है। प्रेमचंद की दृष्टि से किसान के शोषण का पूरा चित्र तब तक नहीं उभरता जब तक उसमें महानगर की भूमिका ना हो। आचार्य नलिन विलोचन शर्मा का कहना है, कि **"गोदान की असंबद्ध-सी दीख पड़ने वाली दोनों कहानियों के बीच से भारतीय जीवन की विशाल धारा बहती चली जाती है। भारतीय जन-जीवन का जो एक ओर नागरिक और दूसरी ओर ग्रामीण और जो एक साथ ही प्राचीन भी है और**

A Phytochemical and Pharmacognostic Evaluation of Chrozophora rottleri (Gies.) Juss

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Abstract

Chrozophora rottleri commonly known as Suryavarti belongs to family Euphorbiaceae is a wildly grown medicinal plant, it grow in ecologically different habitats especially in the fields and along the path side. An autecological study were undertaken in different countries of the world including India shows that plant is a source of dyeing material in carpets and in other crafts in India. It is further believed that this should benefit the economy of India. In the present investigation author took efforts to analyze some phytochemical and pharmacognostic characteristics of the plant. For the present study standard phytochemical and pharmacognostic methods were adopted which are given by experts in the field. From the results it is evident that leaves show parasitic stomata with specific quantitative and qualitative parameters. Phytochemically, plant contains alkaloids, glycosides, saponins, tannins, flavonoids etc.

Keywords: *Chrozophora rottleri*, Phytochemical, Pharmacognostic, Euphorbiaceae, Quantitative.

INTRODUCTION

The plant kingdom is a treasure house of potential drugs and in the recent years awareness about the utility of medicinal plants is increasing. As drugs from plants are easily available, less expensive, safe and efficient with minimum or no side effects, their demand is increasing worldwide (Yadav &Agrawal, 2011).

The use of herbs as medicine is the oldest form of healthcare known to humanity and has been used in all cultures throughout history. Medicinal plants are the back bone of folk medicine. In fact, they are the oldest friend of humans.According to theWHO more than 80% of the world population, rely on herbal/traditional plant based medicines for their prime healthcare needs. Herbal medicines are in a wide variety of forms for their therapeutic value. Herbal plants produce and contain a variety of chemical compounds that are used to prevent and treat diseases or promote health and well-being. Traditional medicines are derived from medicinal plants, minerals and organic matter and they are the sum total of knowledge, skill and practices based on theories, beliefs and experiences indigenous to different cultures that are used to maintain health as well as prevent, diagnose, improve and treat physical and mental illnesses. In developed countries, modern medicines are prominently used. The herbal drugs are prepared from medicinal plants only. India is plentifully enriched with wide variety of plant having medicinal significance. Traditionally, the use of plant preparation as sources of drug are based on the knowledge and superstitions passed from generation to generation. These plants are widely used by all segment of society either directly as folk remedies or as pharmaceutical preparation of modern medicine. Medicinal plants illustrate enormous efficacy against acute and severe diseases.

Pharmacognosy, one of the sciences which is involved in the biosystematics study of different medicinal drug plants. It involves macroscopic, macroscopic, phytochemical, biochemical and physicochemical studies. This becomes possible due to advanced methods of extraction, chromatography, screening and some biotechnological tools. Currently plant based drugs are researched, formulated and manufactured in modern methods which become much useful to researchers of pharmaceutical sciences. This type of research is playing a paramount role in evolution of novel medicines. Advanced studies state that, there are at least 120 distinct chemical substances derived from plants that are considered as important drugs currently in use in the different parts of the world, while several other drugs are simple synthetic modifications of the natural products (Anonymous, 2002). Natural products are our single and most important source of medicines. In the natural product drug discovery, though the conventional methods of extraction, isolation and separation, identification, biological tests etc. suffers from some problems like impurity, lack of accuracy and so on, but with the introduction of innovative technologies in screening, extraction and Chromatography, the entire crisis is solved.

The study of plants continues mainly for the discovery of novel secondary metabolites (Savitharamma et.al.2011). Medicinal Plants possesses very important organic compounds which provide definite physiological action on the human and animal body (Edoga et.al, 2005). These bioactive substances include tannins, alkaloids, carbohydrates, terpenoids, steroids and flavonoids (Mann, 19780). All these compounds are synthesized by primary or rather secondary metabolism of plants. These secondary metabolites are chemically and taxonomically diverse compounds with specific functions. They are widely used in the human medicines, veterinary, agriculture, scientific research and in many other fields (Vasu et.al, 2009). These phytochemicals can be derived from barks, leaves, flowers, roots, fruits, and seed of the different plants. (Criagg & David, 2011). Several plants are studied pharmacognostically and phytochemically by various workers worldwide. (Chavre, 2015, Dipankar et.al., 2011 ,Thakur and Patil, 2011 etc.)

Chrozophora Rottleri is a plant selected for the present study previously been studied by many researchers

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मतदार वर्तनावर प्रभाव पाडणारे घटक

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प्रस्तावना

आधुनिक काळात राज्यातील सर्व लोक स्वत: शासनात प्रत्यक्ष असा भाग घेऊ शकत नाहीत. अशा वेळी बहुसंख्यांना मान्य होतील, असे शासक निवडण्याचे कार्य निवडणुकीमुळे शक्य होते तसेच या शासकांना सातत्याने लोकांना जबाबदार ठेवणेही निवडणुकीमुळे शक्य होते शांततामय मार्गांनी शासनात बदल करून लोकशाही शासन चालू ठेवणे व शासनावर नियंत्रण ठेवणे हे निवडणुकीमुळे साध्य होते. विशेषत: जेथे निवडणुका खऱ्या अर्थाने स्पर्धात्मक असतात आणि उमेदवारांना किंवा त्यांच्या पक्षांना त्यांनी केलेले किंवा ते करू इच्छिणारे कार्य लोकांपुढे मान्यतेसाठी ठेवावे लागते तेथे निवडणुकांमुळे समाजातील विविध सामाजिक समस्यांसंबंधी चर्चा होऊ लागते. लोकमत स्पष्ट होण्याचे मार्ग खुले होऊन लोकमताची साधने परिणामकारक रीत्या कार्यरत होऊ लागतात. नागरिक व शासक यांमधील संबंध नवीन करारांनी बांधणे सुलभ होते. निवडणुकांमुळे राजकीय वर्गाला स्थैर्य प्राप्त होते. संपूर्ण समाजाला व त्या समाजाच्या सरकारला कायदेशीरपणा प्राप्त होतो. नागरिकांमध्ये एक प्रकारचे नवीन संबंधांवर आधारित नाते निर्माण होते. सहभागाच्या भावनेमुळे प्रत्येक नागरिकामध्ये अस्मितेची व प्रतिष्ठेची भावना निर्माण होते. आपण कशाचे तरी कर्ते आहोत व आपल्या मताचा परिणाम काहीतरी घडविण्यामध्ये होतो, या जाणिवेमुळे नागरिकांमध्ये जबाबदारीची जाणीवनिर्माण होते. लोकशाहीमध्ये शासनाला कायदेशीरपणा प्राप्त करून देणे आणि आवश्यक तेव्हा शासनामध्ये शांततामय मार्गाने बदल घडवून आणणे निवडणुकांमुळे शक्य होते. हुकूमशाहीत पुष्कळदा निवडणूक–यंत्रणा औपचारिकपणे राबविली गेली, तरी निवड करण्याचे जे मुक्त स्वातंत्र्य लोकशाहीत असते, ते हुकूमशाहीत नसते लोकशाही सुदृढ व सक्षम असेल तर देशाच्या विविधांगी विकासाला चालना मिळण्यास, विकासाला गती येण्यास भरीव मदत होते. याच दृष्टीकोनातून या देशाचा नागरिक म्हणून प्रत्येकाने आपला मतदानाचा हक्क प्राथम्याने बजावणे नितांत गरजेचे आहे. किंबहूना मतदानाचा हक्क बजावणे म्हणजे राष्ट्रीय कर्तव्य बजावणे असे म्हणल्यास वावगे ठरणार नाही. परंतु आज मतदार आपले कर्तव्य बजावत असताना त्याच्यावर अनेक घटकांचा प्रभाव पडत असतो व त्यातून त्याचे वर्तन ठरते या अनुषंगाने लघु संशोधनात प्रकाश टाकण्यात आला आहे.

संशोधनाची उद्दिष्टे

मतदार वर्तनावर प्रभाव पडणाऱ्या घटकांचा अभ्यास करणे.

गृहीतके

१. मतदार वर्तनावर धार्मिकतेचा व जातीयतेचा प्रभाव आहे.
२. आर्थिक घटक, प्रादेशिकता, राजकीय पक्ष यांचा प्रभाव आहे.
३. व्यक्ती महात्म्य व इतरही घटकांचाही मतदार वर्तनावर प्रभाव आहे.

संशोधन पद्धती

प्रस्तुत शोधानिबांधासाठी ऐतिहासिक, वर्णनात्मक आणि विश्लेषणात्मक संशोधन पद्धतीचा अवलंब केला आहे.

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भारतीय निवडणूक प्रक्रिया विकास आणि सुधारणा

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प्रस्तावना :

इंग्लंडमध्ये १६८८ च्या क्रांतीनंतर राजाची सत्ता कमी होत जाऊन विधिमंडळाची सत्ता वाढत गेली. यातून संसदीय शासन पद्धत पुढे आली. नंतर झालेल्या फ्रेंच राज्य क्रांतीने विधिमंडळातील प्रतिनिधीचा आधार व्यापक आणि व्यवहारिक बनला. यातून प्रतिनिधीत्व आणि प्रातिनिधिक शासन पद्धतीचे महत्व वाढले. प्रातिनिधिक लोकशाही ही निवडणुकीच्या माध्यमातून उभी राहिली आहे. लोकशाहीत अंतिम सत्ता जनतेच्या हाती असते. जनता सार्वभौम असते हे तत्व निवडणुकीच्या माध्यमातून प्रस्थापित होते. यामुळे निवडणुकीस महत्व प्राप्त होते. आधुनिक काळात राज्यांनी प्रातिनिधिक लोकशाहीचा स्वीकार केल्याने लोकांना आपले प्रतिनिधी निवडता येतात तसेच राजकीय प्रक्रियेत सहभागी होण्याची संधी मिळते नागरिक राजकीयदृष्ट्या जागरूक व जबाबदार बनतात. नागरिक निवडणुकीच्या माध्यमातून आपले राज्यकर्ते कोण असावेत याचा निर्णय घेऊन शासनावर नियंत्रण ठेवण्याचे अतिशय महत्वाचे काम करीत असतात. आपल्याला निवडणुकीस सामोरे जावयाचे आहे म्हणून राज्यकर्ते ही जबाबदारीने काम करतात. राजकीय पक्षांची जबाबदारी व महत्व वाढते. राजकीय पक्षांवर नियंत्रण ठेवण्यासठी निवडणुकीचा उपयोग होतो. नागरिकांना राजकीय शिक्षण मिळते. लोकशाहीत अहिंसात्मक मार्गाने सतांत्तर, खऱ्या लोकशाहीचा अविष्कार, लोकशाहीमध्ये श्रेष्ठ जीवन मूल्यांना महत्व प्राप्त होते. निवडणूक नसेल तर प्रातिनिधिक लोकशाही यशस्वी होणार नाही.

संशोधनाची उद्दिष्टे

१ भारतीय निवडणूक प्रक्रीयाचे अध्ययन करणे.

२ निवडणूक सुधारणाचा अध्ययन करणे.

गृहीतके

१ भारतीय निवडणूक आयोग चांगल्या प्रकारे कार्य करत आहे.

२ निवडणूक सुधारण्यासाठी उपाय केले जात आहे.

संशोधन पद्धती

प्रस्तुत शोधनिबंधासाठी ऐतिहासिक, वर्णनात्मक आणि विश्लेषणात्मक संशोधन पद्धतीचा अवलंब केला आहे.

तथ्य संकलन

प्रस्तुत विषय आंतरशाखीय दृष्टीकोनातून अध्ययनासाठी निवडला असल्यामुळे ग्रंथ,वर्तमानपत्रे,मासिके इ. दुय्यम साधनांचा तथ्य संकलनासाठी उपयोग करण्यात आला आहे.

भारतातील निवडणूक प्रणालीचा विकास :

भारतीय घटनेने संसदीय लोकशाहीचा पुरस्कार केला आहे. देशात खऱ्या अर्थाने लोकशाही अस्तित्वात यावयाची असेल तर खुल्या आणि स्वच्छ वातावरणात निवडणुका होऊन योग्य व पात्र अशा प्रतिनिधीची निवड

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प्रस्तावना

'मानव इतिहास हा वर्ग संघर्षाचा इतिहास आहे",असे कार्ल मार्क्सने म्हटले आहे. मानवी समाजात परिवर्तन होत असते हे परिवर्तन हिंसेतून किवा अहिंसेतून प्रत्यक्ष व अप्रत्यक्ष होते. ज्या वेळी समाजात अन्याय अत्याचार व जुलूमशाही मोठ्या प्रमाणात निर्माण झालेली असते तेव्हा समाजात चळवळी निर्माण होतात. लोकांच्या हक्क अधिकारावर गदा येते तेव्हा अशा दाबलेल्या समाजात नवीन विचार, नवीन शक्ती निर्माण होऊन चळवळी निर्माण झाल्याचे इतिहास साक्ष आहे. समाजाच्या मर्यादित भागात किवा संपूर्ण समाजव्यवस्थेत परिवर्तन किवा बदल घडून आणण्यावर सामाजिक चळवळीचा रोख असतो. सामाजिक परिवर्तनाचे ध्येय,वैचारिक अधिष्ठान, प्रत्यक्ष व सामुहिक कृती, सामर्थ्यवान नेतृत्व व लोकसहभाग चळवळी या समाजव्यवस्थेचे व्यच्छेदक लक्षण मानल्या जातात. जगात अनेक सामाजिक, सांस्कृतिक, धार्मिक व राजकीय चळवळी निर्माण झाल्या आहेत.इ.स. १७७६ चे अमेरिकन संग्राम, इ.स.१७८९ ची फ्रेंच राज्य क्रांती, इ.स. १९१७ ची रशियन राज्य क्रांती, इ.स. १९४९ ची माओची सांस्कृतिक क्रांती वा हिंदुस्थानचा स्वातंत्र्याचा संग्राम अशा अनेक क्रांत्या किवा चळवळी जगात प्रसिद्ध आहेत. भारतीय समाजव्यवस्थेत सामाजिक चळवळीची सुरुवात स्वातंत्र्यपूर्व काळापासून झालेली आहे. प्रस्थापित समाजव्यवस्थेत परिवर्तन घडवून आणण्यासाठी चळवळी होतात. समाजाच्या मर्यादित भागात किवा संपूर्ण समाजात परिवर्तन घडवून आणण्यासाठी केला जाणारा उठाव म्हणजे चळवळ जेव्हा एखादा ज्वलंत मुद्दा किवा प्रश्न समोर येतो तेव्हा त्या विरोधात उमटणाऱ्या प्रतिक्रिया या चळवळीच्या स्वरुपात व्यक्त होत असतात. भारतात अनेक चळवळी निर्माण झाल्या त्यात कामगार चळवळ, शेतकऱ्यांची चळवळ,राष्ट्रीय चळवळ,भ्रष्टाचार विरोधी अशा अनेक चळवळी दिसून येतात. याला आदिवासीही अपवाद नाही. आदिवासीनी ब्रिटीश कालखंडापासून तर स्वातंत्र्योत्तर काळापर्यंत जुलमी इंग्रज सत्ते विरुद्ध बंड पुकारले आदिवासीत संथाल चळवळ, खारवर चळवळ, बिरासामुंडाची चळवळ, झारखंड चळवळ व अलीकडील बोडो चळवळ, नागा चळवळ आणि मेधा पाटकरांच्या नेतृत्वाखाली महाराष्ट्रात आदिवासींनी वनकायदा व सरदार सरोवराच्या संदर्भात विस्थापित आदिवासींनी मोठ्या प्रमाणात जनांदोलन केले. आदिवासींनी आपली अस्मिता व अस्तित्व टिकवण्यासाठी चळवळी केल्या आहेत. या अनुषंगाने आदिवासींच्या सांस्कृतिक व शैक्षणिक चळवळीचा आढावा प्रस्तुत लघु शोधनिबंधात घेतला आहे.

संशोधनाचे उद्दिष्टे

१) आदिवासींच्या सांस्कृतिक चळवळीचे अध्ययन करणे.
२) आदिवासींच्या शैक्षणिक चळवळीचे अध्ययन करणे.

संशोधनाची गृहीतके

१) आदिवासी समाजाचा बाह्य संस्कृतीशी संबंध आला आहे.
२) सामाजिक सुधारणावादी चळवळीमुळे सामजिक सुधारणा होत आहेत.

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आदिवासींची ऐतिहासिक पार्श्वभूमी व जीवन

प्रा. डी. डी. ठाकरे
राज्यशास्त्र विभाग
कला, वाणिज्य व विज्ञान महाविद्यालय
नांदगाव ता.नांदगाव जि. नाशिक

प्रस्तावना:

मानवाप्रमाणेच मानवी संस्थांचाही विकास कोणत्यातरी तत्त्वानुसार झाला असावा, असे मत डार्विनने आपला जैवविकासाचा सिद्धांत १८५९ साली मांडला त्याप्रमाणे हर्बर्ट स्पेन्सरनेही सामाजिक संस्थांसंबंधीचा विकाससिद्धांत प्रतिपादन केला मानवप्राणी जर एकाच जातीचा आहे, तर त्याच्या विभिन्न संस्कृती का, या प्रश्नाचे उत्तर शोधण्याचा प्रयत्नन कसोशीने करण्यात आला. आदिवासी समाज शतकानुशतके आधुनिक सभ्यतेपासून दूर अशा दऱ्याखोऱ्यांतून जगत असल्याने आदिवासींच्या संस्थांचे अध्ययन केल्यास, त्यावरून मानवी संस्थांच्या उगमाबद्दल व विकासाबद्दल निश्चित कल्पना मांडता येतील, असे सुरवातीच्या मानवशास्त्रज्ञांस वाटले. त्या अनुषंगाने अमेरिका, आफ्रिका, आशिया व ऑस्ट्रेलियातील आदिवासींच्या संस्कृतींचे अध्ययन करण्यात आले. मानवशास्त्रीय सिद्धांत या अध्ययनावर आधारलेले आहेत. आदिवासी संस्कृतीत साम्यवादी अर्थव्यवस्था व समाजव्यवस्था होती, असे मत ल्यूइस मॉर्गन या अमेरिकन मानवशास्त्रज्ञाने प्रथम मांडले, तिचा ऱ्हास होऊन पुढे दास्यश्रमाधिष्ठित प्राचीन व्यवस्था, सरंजामशाही व नंतर भांडवलशाही यांचा उदय झाला. हे मत मार्क्सवाद्यांनी उचलले, परंतु त्यानंतर झालेल्या आदिवासींच्या तपशीलवार अध्ययनाने हे मत निराधार ठरले. मानवशास्त्रामुळे आदिवासींच्या अध्ययनास महत्त्व प्राप्त झाले आहे. मानवशास्त्रज्ञांच्या मते आधुनिक जटिल संस्कृतींचा अभ्यास करण्यापूर्वी आदिवासींच्या साध्यां व विनगुतागुतींच्यां संस्कृतींचा अभ्यास जास्त सयुक्तिक ठरतोय कारण साध्या संस्कृतीचे अध्ययन केल्याने मानवी व्यवहाराची मूलभूत तत्त्वे शोधून काढणे व त्यांच्या आधारे जटिल संस्कृतींना समजून घेणे, अधिक सोपे व उपयुक्त होते. मानवसमाजाच्या सर्व घटकांचा सारखा विकास घडवून आणण्यासाठी आदिवासींचीही प्रगती करावी, या मानवतावादी दृष्टिकोनानुसारही आदिवासींविषयक अध्ययनास अलीकडे महत्त्व प्राप्त झाले आहे

संशोधनाची उद्दिष्टे

आदिवासी समाजाचे अध्ययन करणे

संशोधांची गृहीतके

१) आदिवासी समाज हा दैववादी आहे.
२) आदिवासी माणूस हा साधा आणि भोळा आहे.
३) आदिवासी समाज दुर्गम भागात राहतो.
४) गरिबी, अज्ञान, अंधश्रद्धा यात हा समाज गुरफटला आहे.

संशोधन पद्धती

सदर लघु शोध शोधनिबंधासाठी ऐतिहासिक, वर्णनात्मक व विश्लेषणात्मक पद्धतीचा आधार घेण्यात आला आहे.

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Synthesis of Co (II) metal complex of 2-((2-hydroxynaphthalen-1-yl) methyleneamino)-3-phenylpropanoic acid

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ABSTRACT

Co (II) complex of 2-((2-hydroxynaphthalen-1-yl)methyleneamino)-3-phenylpropanoic acid was synthesized from $Co(OAc)_2$ with the ligand in stoichiometric 1:1 ratio. This complex was characterized by analytical and spectroscopic methods.

KEYWORDS: 2-Hydroxy-1-naphthaldehyde, L-phenylalanine, Schiff's Base, Co (II) complex, Antimicrobial activity

INTRODUCTION

German chemist Hugo Schiff In 1864 [1] developed a new class of organic compounds and these active and well-designed organic compounds were designated as "Schiff Base Ligands" by Cozzi [2]. When α-amino acid was condensed with aldehyde to form Schiff base having azomethine (RC=N) linkage. The Schiff base metal complexes plays significant role in biology [3,4], analytical chemistry [5,6] and industry [7,8]. Schiff base ligand co-ordinated as tridentate ligand through phenoxy oxygen, carboxy oxygen and azomethine nitrogen atom. Fe (III) complex of 2-((2-hydroxynaphthalen-1-yl)methyleneamino)-3-phenylpropanoic acid was prepared and structure of complex was demonstrated by physicochemical and spectral methods [9]. Bushra and co-workers prepared Vanadyl complexes by reacting Schiff base obtained from 2-hydroxybenzaldehyde and L-phenyalanine and found that complex is non-electrolyte but biological active [10]. Cu (II) complex of Salicylaldehye-L-phenylalanine Schiff base was prepared by Mihela Mureseanu *et al* [11] and used as novel catalyst for oxidation of cyclohexane alongwith H_2O_2. Rare earth inner transition metal Lanthanum (III) complex was prepared and octahedral geometry was predicted by S.D. Ballal *et al* [12]. A novel six coordinated Ru (II) complex was prepared by Jiao Geng *et al* from chiral bis-Schiff base ligand obtained from L-phenylalanine and terephthaldicarboxaldehyde [13]. Fe (III) complex of Schiff base of L-phenylalanine was synthesized and catalytic performance at different reaction conditions were studied by S. Ahmed [14]. An eco-friendly synthesis of L-phenylalanine Schiff base in absence of organic solvent was done by A. Aghao [15].

In this paper we have focused on the synthesis and characterization of tridentate Schiff base ligand 2-((2-hydroxynaphthalen-1-yl)methyleneamino)-3-phenylpropanoic acid obtained by condensation of L-phenylalanine with 2-hydroxy-1-naphthaldehyde. The ligand has been used to obtain Co (II) complex in 80-85% yield. This complex was characterized by analytical and spectroscopic methods.

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Study of Intermolecular Association through Dielectric and Density Properties at Room Temperature

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ABSTRACT

Dielectric properties of Diethylene glycol monobutyl ether (DGBE) with Formamide (FA) at 299 K temperature have been measured in the frequency range between 10 MHz to 20GHz using time domain Reflectrometry. Dielectric parameters viz., static dielectric constant (ϵ_s), relaxation time (τ) were obtained from complex permittivity spectra using nonlinear least squares fit method. The Density (ρ) and Refractive index (n_D) were also measured. Using these parameters excess dielectric properties ($\Delta\epsilon_s$), Kirkwood correlation factor (g^{eff}), excess molar volume (V^E) and Excess Molar refraction (ΔR_m) were determined as they yield information about intermolecular interaction and orientation of dipoles in the polar-polar constituents of the mixtures. The experimentally, it has been found that values of static dielectric constant increases with the increase in the percentage of FA.

KEYWORDS: Dielectric relaxation; Time Domain Reflectrometry & Kirkwood correlation factor.

INTRODUCTION

The dielectric constant is an important fundamental property of liquids and is related to polarity of the substance and other properties. Dielectric properties of binary mixtures are important for understanding the intermolecular interactions in a molecular system. "[1-7]"

Several parameters of mixture are extensively used to investigate and interpret the medium effects in chemical reactions and molecular interactions. Density is one of the most relevant intensive properties of the liquid mixtures to be measured experimentally.

The study of intermolecular association of DGBE and FA is incorporated because of their applications in various field. DGBE is used in printing industries as it has a slow evaporation rate and also used as a fixative for perfumes, germicides, bactericides, insect repellents and antiseptic. FA is also used as an RNA stabilizer in gel electrophoresis by deionizing RNA. In capillary electrophoresis, it is used for stabilizing (single) strands of denatured DNA.

The knowledge of the physicochemical and thermodynamic properties of binary liquid mixtures formed by one or two components associated through hydrogen bonds and dipole-dipole interaction is important from both theoretical and process design aspects. This paper reports the important properties such as Static dielectric constant, relaxation time, refractive index and density of the DGBE+FA mixtures at 299K.

EXPERIMENT

Chemicals and sample preparation

The chemicals used in the present investigation are of good quality and are of pure form. The solutions were prepared by mixing DGBE with FA at 11 different volume percentage of FA, 0 to100% in steps of 10 %.

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2017 – 2018.

Subaltern (Black Woman's) Struggle to reach Centre in Gloria Naylor's *Mama Day*

Dr. Manohar D. Dugaje

Abstract:

Literature is defined as an art form that has artistic and intellectual value. Literature represents the beliefs, customs, values and social behavior of a particular society at a given period of time. On careful examination one finds that the literature of a society has been written by the dominant group of that society. For example, American literature was mainly represented by the whites and they set the standards. The African-Americans were represented (in American literature) as uncivilized, ugly and without values. The African American literature was first written by African American men highlighting their predicament in a racist environment. African American woman started writing about herself much later. Her writing received lukewarm

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लोकपरंपरा, लोककला, आणि लोकरूढी: एक सामजिक अनुबंध

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प्रास्ताविक:

'लोकसाहित्य हा समाज संस्कृतीचा प्रकट धर्म आहे'. भारतीय परंपरा आणि संस्कृती यांचा विचार केला तर लोकसाहित्याचे स्थान नेहमीच उच्च दर्ज्याचे राहिले आहे. लोकसाहित्याचे एकंदरीत स्वरूप पाहता लोकसाहित्य हे वेद, श्रुती-स्मृती, गाथा-संहिता, शास्त्र-इतिहास आदींच्या अग्रभागी असलेले अक्षर वाङ्मय आहे. लोकसाहीत्यामधून उदात्त आणि चिरंतन जीवन आणि सांस्कृतिक मूल्यांचे नेहमीच दर्शन घडते.'१' लोकसाहित्य हे लिखित, ग्रंथित किंवा लिपीबद्ध नसून निसर्ग आणि मानव निर्मित आहेत. हे लोकसाहित्य भारतातील आदि संतानाचे अस्सल वाङ्मय भांडार आहे. लोकसाहित्याची जोपासना ही नागर लोकांपेक्षा ग्रामीण भागातील लोकांनी अधिक जोपासली असून लोकसाहित्यातील तत्त्वांचा चांगला अभ्यास त्यांना आहे. लोकसाहित्य हे लोकजीवनाच्या सर्व अंगांना आणि अंतरंगविशेष्याना स्पर्श करणारे असल्यामुळे लोकसाहित्याचे अभ्यासक्षेत्रे हे एक प्रकारे सर्व सामाजिक शास्त्रांचे मायपोट मानले गेले. लोकसाहित्याला आदि काळापासूनची परंपरा आहे. लोकसाहित्याला वेगवेगळ्या कालखंडात लोकजीवन विशेषांचे संदर्भ लाभले असल्यामुळे विविध ज्ञानशाखांच्या अभ्यासात, अभ्यासाची साधनसामग्री म्हणून लोकसाहित्याला वेगळे महत्त्व आहे. पश्चिमेकडील देशांनी लोकसाहित्याचा अभ्यास जेव्हढा गांभीर्याने केला त्या मानाने मात्र पूर्वेकडील देश्यात लोकसाहित्याकडे म्हणावे तितके गांभीर्याने पाहिलेले दिसत नाही. महाराष्ट्रात लोकसाहित्याची मांडणी १८५८ पासून सुरु झाली तरी खऱ्या अर्थाने इ. स. १९१५ पासून त्यांचा अभ्यास होऊ लागला. १९१६ पासून लोकसाहित्याच्या प्राणप्रतिष्ठेला प्रारंभ झाला. या लोकसाहित्याच्या प्राणप्रतिष्ठेच कार्य प्रथमतः वि. का राजवाडे यांनी केले. '२'

लोकसाहित्याचा विचार करता 'लोक' आणि 'साहित्य' हे दोन शब्द एकत्र येऊन 'लोकसाहित्य' हा सामासिक शब्द तयार झालेला आहे. 'रूढी व परंपरा यानुसार आलेल्या लोकांची जीवनपद्धती म्हणजे लोकसाहित्य' होय. लोकसाहित्य हे एका पिढीकडून दुसऱ्या पिढीकडे बदल होऊन जात असते. लोकसाहित्यातील कथा, गीते, म्हणी, वाक्प्रचार, संकेत, लोकाचार याचा कर्ता एक नसतो. "आदिम काळापासून रूढ असलेल्या समजुती, पारंपरिक कथा, लोककथा गीते, विधिविधाने, उत्सव, निरनिराळे खेळ, जादूटोणा, जोतिष्य, परंपरेने चालत आलेल्या क्रिया, तोटके, लोकभ्रम, लोकोक्ती इत्यादींचा समावेश लोकसाहित्यात होतो" '३' लोकसाहित्यातील 'लोक' म्हणजे परंपरेने चालत आलेले जीवन जगणारे, आपल्या समूहाची वैशिष्ट्ये जतन करणारे, प्राकृतिक जीवन जगणारे, आणि स्वतःच्या समूहाच्या सांस्कृतिक परंपरा असलेले, वंश, परंपरा, भाषा, व्यवसाय इत्यादी वैशिष्ट्य असलेले ते 'लोक' आणि परंपरेने चालत आलेली जीवनपद्धती म्हणजे लोकसाहित्य परंपरेने चालत आलेल्या लोकजीवनाचे जगण्याचे आधार म्हणजे साधनसामग्री ही साधनसामग्री साधारण पुढीलप्रमाणे सांगता येईल.

१) लोकश्रद्धा, लोकविश्वास, लोकसमजुती
२) आचार, विचाररुढी - प्रथा
३) विधी - विधाने
४) यातुकल्पना
५) लोकगीत, लोककथा, उखाणे, म्हणी इ.

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Principal
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40

'उर्वशी' में प्रेम भावना की उत्कट अभिव्यक्ति!

प्रा. शांताराम वळवी
अध्यक्ष, हिंदी विभाग
कला, वाणिज्य एवं विज्ञान महाविद्यालय,
नांदगांव जि—नाशिक, महाराष्ट्र

'प्रेम' शब्दमात्र में ही एक अजीब—सी मिठास है, एक अजीब—सा सौंदर्य, एक अजीब—सी शीतलता! 'प्रेम' शब्द सुनने मात्र से ही हमारे प्राणों में एक विसर्जित अल्हाददायक तरंग उभरती है। 'प्रेम' का वास्तविक अर्थ 'तृप्ति' है। इसीलिए यह भावना आनंददायक है। दरअसल यह भावना 'स्व' को विसर्जित करने से उत्पन्न होती है। आप जिससे प्रेम करते हैं, तब आपका अहम् (पहचान) भूलकर पूरी तरह से भूल जाते हैं। जहाँ आप अपनी पहचान बनाए रखते हैं, वहाँ लें—दें का व्यवहार होता हैं, न कि प्रेम व्यवहार! प्रेम विलीन हो जाने की प्रक्रिया हैंस सूफी फकीर कहते हैं,

"पूछते, है इश्क क्या, कह खुदी को छोड़ना,
खुद को जीता न हो, तो खुदी कोई नहीं।"

अर्थात सब कुछ (बाहरी चीजें नहीं) समर्पित करने से ही एकाकार संभव होता हैं। इसीलिए प्रेम दिव्य हैं, उदात्त हैं, पवित्र हैं स यह उच्छ साधना की माँग करता हैं। इसीलिए शायर कहते हैं,

''ये इश्क नहीं आसाँ बस इतना समझ लीजे,
एक आग का दरिया हैं और डूब के जाना हैं।''(ह्रा)

अर्थात सामर्थ्ययशाली व्यक्ति ही इस कठिन परीक्षा में सफल हो सकता हैं। प्रस्तुत आलेख इसी मानवीय उच्च कोटि की भावना के चिंतन का परिणाम हैं। इस आलेख में रामधारीसिंह 'दिनकर' लिखित सुप्रसिद्ध गीतिनाट्य 'उर्वशी' में अभिव्यक्त 'प्रेम' भावना को समझने का प्रयास किया गया है। अर्थात समस्त जीव—जंतुओं में उत्पन्न 'प्रेम' के केंद्र में 'काम' भावना के महत्व को जानने—समझने का प्रमाणिक प्रयास किया गया है।

भारतीय पौराणिक कथाओं में उर्वशी स्वर्ग की अनित्य सौंदर्यवती है। पुरुरवा विक्रमोर्वशीय राजा है। एक बार इंद्र राजसभा में नृत्य करते समय उर्वशी राजा पुरु के प्रति वह आकर्षित हो जाती है। नृत्य ताल बिगड़ने से सभा में विरस उत्पन्न होता हैं। इस अपराध के लिए इंद्रदेव उसे मृत्युलोक में रहने का अभिशाप देते हैं। वह पृथ्वीलोक में राजा पुरु को अपना पति स्वीकार करती हैं। अभिशाप से मुक्ति के लिए शर्त थी, कि यदि वह राजा पुरु को नग्न अवस्था में देख लें या उसकी इच्छा के प्रतिकूल समागम करें तभी उसे इस अभिशाप से मुक्ति मिलेगी। उर्वशी और पुरुरवा कई वर्षों तक साथ रहते हैं। नौ पुत्र होते हैं। दीर्घ अवधि बीतने पर गंधर्वों को उर्वशी की कमी सताने लगी। इसलिए गंधर्वों ने विश्वासु को एक दिन रात्रि के समय भेजा। वह उर्वशी और पुरुरवा के बीच समागम के अंतरंग क्षणों में कक्ष में प्रकाश कर देते हैं। और उर्वशी पुरुरवा को नंगा देख लेती हैं। वह कई वर्षों के बाद शापमुक्त होकर पृथ्वीलोक के महापराक्रमी राजा पुरुरवा को छोड़कर गंधर्वलोक निकल जाती हैं। यह कथा अनेक रचनाकारों ने थोड़े बहुत अंतर के साथ इसी कथा सूत्र को आधार बनाकर समय—समय पर रचना—चिंतन के केंद्र में रखी हैं।

वस्तुतः रामधारीसिंह 'दिनकर' ओज और क्रांति के कवि हैं। परंतु 'उर्वशी' में कोमल भावनाओं की अल्हाददायक और उत्कट अभिव्यक्ति हमें विस्मित करती हैं। सन् १९६१ ई. में प्रकाशित 'उर्वशी' पाँच अंको में विभाजित (१५६ पृष्ठ) रचना हैं। इसमें प्रमुख पात्र पुरुरवा, उर्वशी और औशीनरी हैं और चित्रलेखा, मेनका, निपुणिका, मदनिका, सहजन्या, रंभा आदि गौण पात्र हैं स पुरुरवा और उर्वशी 'उर्वशी' गीतिनाट्य के नायक—नायिका हैं। कवि यहाँ उर्वशी और पुरुरवा के प्राचीन आख्यान को नयी दृष्टि से स्थापित करते हैं। 'उर्वशी' सौंदर्य,

14

ICHTHYOFAUNAL DIVERSITY OF CYPRINUS SPECIES FROM MARATHWADA REGION MAHARASHTRA, INDIA.

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ABSTRACT:-

The present study was carried out from July 2015 to June 2017, 03 species of Cyprinus species from Cyprinidae family was recorded through out from Marathwada region ,Maharashtra state India. Cyprinus genus contribute 03 species commonly known as **"Kombada"** . Cyprinus carpio communis was dominant from both the species. Cyprinus carpio communis is successfully culture and accept the condition of Indian tropical region were site I contribute only one species and site, site II, III contribute two species IV,V,VI contribute three species.

Key Words:- Marathwada, Cyprinidae, Ichthyofauna Cyprinus .

Introduction

There are about 450 families of freshwater fishes globally, about 40 represent in India (warm freshwater fishes) about 25 of these families are commercially important. Day (1878) and Hamilton (1822) were the first modern writers of Indian fishes.India is one of the mega-biodiversity countries in the world and occupies the 9th position in term of freshwater mega-biodiversity (Mittermeier and Mittermeier, 2000). Two biodiversity "hotspots" namely The Eastern Himalayas and Western Ghats have been recognized by the World Conservation Monitoring Center (WCMC, 1998). Cyprinus carpio species is belongs to order Cypriniformes, family Cyprinidae. It is exotic fish brought from Sri-lanka to India in 1939 for food fish and as a experimental culture but in later year it will be culture throughout India as a favorite food fish among common people Cyprinus carpio species contribute 03 species
1) *Cyprinus carpio specularis* (Lacepede 1803)
2) *Cyprinus carpio communis* (Lacepede, 1803)
3) *Cyprinus carpio nudus* (Bloch, 1784)

MATERIAL AND METHODS

To study the Ichthyofauna of Marathwada region from July 2015 to June 2017, fish samples were collected from six sampling sites (site I, site II, site III, site IV, site V and site VI) of five districts (Aurangabad, Jalna, Parbhani, Nanded and Beed) which represent the ichthyofaunal composition of Marathwada region.

Fish samples were collected every week during the study period from the fish landing centers with the help of skilled local fishermen by various fishing crafts, gears with variable mesh size. Sampling points were distributed throughout the site to cover its whole area and location was changed for the collection of fish fauna according to the season.

Identification of fishes was done up to species level at fish landing center to get its natural colour, pattern of scales, fins, mouth pattern, identification marks like black spot, bloach on operculum, paired and unpaired fins and body parts with the help of standard

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02

Air Born Fungi from Kubhmela festival in Nashik district

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INTRODUCTON

According to modern science aerobiology is scientific multidisciplinary approach concerned with the source of organism or atmospheric transmission of bio particle deposition and their impact of human being plant and animal. Our ancient literature like Vedas and Agnihotra has also references on polluted air and its purification (Tilak 1982) human being is living in the company of microbe's unseen and undetected. The term Aerobiology comes from use since 1930 as collective term for the studies of airspors like air born fungal spore, pollen grain and other airborne micro-organism. Aerobiology however has now developed into on expanding science with interdisciplinary borders extending plant pathology, Mycology, Medicine allergy, Veterinary science, Bio deterioration, Meteorology and Cosmo biology in spite of several distinct contribution, Aerobiology concerned with ecological approach.

Recent status of aerobiology has discussed by Chand (1991-1992) Befenning Hoff (1980-1991), Boehm (1887), Frankland (1978), Printing spiksma (1991), Tilak (1947, 1987, and 1988), and Nilsson (1992). The result of investigation all over the world have established beyond doubt the significant role of fungal spore in the aetiology of respiratory allergic disorder. The airborne fungal spore when inhaled produces allergic symptoms in sensitive individual without growing or responding in the host tissue.

REVIEW OF LITERATURE

Aerobiology in India and Abroad-

The aerobiology which has now developed into a fertile field of research is comparatively recent in origin. Extensive studies on airspora have been carried out by Gregory (1945) in United Kingdom. Hyde and Williams (1949) studied at census of mould spores in the atmosphere at Cardiff, Hirst (1952 and onwards) conducted experiments in United Kingdom, Collins Williams and Best (1955) reported atmospheric mould counts in Toranto (Canada), Di-meena (1955) studied the airspora of Dune dim (New England).

The other important contribution include that of pady, Kramer and his co-worker (1957) and onwards in United States, Meredith 91961 and onwards) in West Indies, Sreemulu and Co-workers (1958 and onwards) inn Waltiar and Tilak and Co-worker at Aurangabad 1968 and onwards) in India, Subba Reddy and his co-worker (1970 and onward at Waltiar in India. These persons obtained a huge data on general aero mycology and worked out the composition of airspora. Apart from all these investigations, studies of Gregory and Hirst (1957) on airspora at Rothamsed Harpenden, Dransfield (1966) on airspora of samara and Turner (1966) on airspora of Hong-Kong are also significant. Mention may be made of the aero mycological work carried out in the other countries Vi derrick and MCHENNAN

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शेतकरी आत्महत्या आणि महाराष्ट्रातील कृषी व्यवस्था

– प्रा संजय अ मराठे
राज्यशास्त्र विभाग
कला, वाणिज्य व विज्ञान महाविद्यालय, नांदगाव, ता. नांदगाव, जि. नाशिक

प्रस्तावना

भारतातील जवळपास ६९ टक्के लोकसंख्या उपजीविकेसाठी आजही शेतीवर अवलंबून आहे. सर्वाधिक रोजगार निर्मिती, निर्यातीतील महत्वपूर्ण स्थान, अन्नधान्याची आत्मनिर्भरता, उद्योगाला सहायभूत इ. महत्वपूर्ण भूमिका भारतीय अर्थव्यवस्थेत शेतीची आहे. भारतातील शेती क्षेत्राकडे सरकार, बँका, संशोधक यांची भूमिका उदासीन राहिली आ शेती हा महाराष्ट्राचा प्रमुख व्यवसाय आहे. महाराष्ट्राची अ स्था प्रामुख्याने कृषीक्षेत्रावर आधारित आहे. महाराष्ट्र हे देशातील एक प्रगत राज्य आहे. उद्योग, व्यापार व सेवा क्षेत्रात महाराष्ट्र अग्रेसर आहे. याचे प्रमुख कारण कृषी क्षेत्र होय. महाराष्ट्रातील बहुसंख्य लोक शेती व्यवसायाशी कोणत्या ना कोणत्या स्वरुपात निगडीत आहेत. महाराष्ट्रातील ग्रामीण भागाच्या सामाजिक व आर्थिक विकासात शेती क्षेत्राचे महत्व अनन्यसाधारण असे आहे. राज्याच्या एकूण उत्पादनात कृषी क्षेत्राचा वाटा मोठा आहे. शेती बरोबरच शेती पूरक उद्योग तसेच शेतमाल प्रक्रिया उद्योगाचाही विकास होत असून त्यामुळे कृषी शेत्रातील एकूण उत्पादनात चांगली वाढ होत आहे. औद्योगिकरणामुळे व्यापार व सेवा क्षेत्राचा एकूण उत्पनातील वाटा वाढून कृषी क्षेत्राचा वा घटत असला तरी आजही राज्यातील एकूण उत्पन्नातील कृषी क्षेत्राचा वाटा लक्षणीय आहे. महाराष्ट्रातील प्रचंड लोकसंख्येस अन्न धान्याचा पुरवठा करणे हे आव्हान कृषी क्षेत्राने यशस्वीपणे पेलले असून तांदूळ, ज्वारी, बाजरी, भाजीपाला फळफळावळ अशा सर्व आवश्यक अन्नधान्य व इत कांच्या उत्पादनात स्वयंपूर्णता प्राप्त केली आहे. तसेच प्रंचड लो ख्येला प्रत्यक्ष व अप्रत्यक्ष रोजगार पुरवला आहे. साखर उद्योग, वस्त्रउद्योग, अन्नप्रक्रिया उद्योग, कागद उद्योग, विविध रासायनिक उद्योग आदींना कच्च्यामालाचा पुरवठा केला जातो. त्यामुळे कृषी क्षेत्राबरोबर औद्योगिक क्षेत्राच्या प्रगतीला हि चालना मिळाली. कृषी क्षेत्रामुळे महाराष्ट्रातील ग्रामीण भागातील जनतेच्या आर्थिक विकासाबरोबर सामाजिक विकास करणे शक्य झाले. शेतीच्या विकासाबरोबर उत्पनात वाढ झाल्याने त्यांच्या राहणीमानात देखील सुधारणा घडवून आणणे शक्य होत आहे. रोजगाराच्या संख्येत वाढ होऊन कामानिमित्त लोक एकत्र येतात त्यामुळे त्यांच्यात परस्पर संवाद आणि सलोख्याचे वातावरण निर्माण होण्यास मदत होत आहे. शेती क्षेत्राच्या महत्वपूर्ण भूमिकेमुळे महाराष्ट्राच्या आर्थिक विकासात हातभार लागला आहे. त्यामुळे संपूर्ण देशामध्ये एक प्रगत राज्य म्हणून महाराष्ट्राची ओळख निर्माण झाली आहे.

१९६० साली महाराष्ट्र राज्याची स्थापना झाल्यानंतर शेतकरी वर्गाला दिलासा मिळावा या उद्देशाने सातत्याने अनेक सुधारणा व उपाय योजना केल्या असल्या तरी त्यामुळे शेतकरी वर्गाची परिस्थिती फारशी सुधारलेली नाही राज्यकर्त्यांनी सहकार, साखर कारखाने, उद्योग या क्षेत्राकडे जेव्हढे लक्ष दिले तेव्हढे शेती क्षेत्राकडे दिले नाही. शेती हे उत्पनाचे प्रमुख क्षेत्र असल्याने या क्षेत्राचा विकास करण्यासाठी केवळ घोषणाचा कडकडाट झाला असला तरी प्रत्यक्षात शेतकऱ्यांच्या समस्या सोडवण्यात राज्यकर्त्यांना अपयश आले आहे. महाराष्ट्रातील ८६ टक्के शेती आजही पावसावर अवलंबून असून मध्य महाराष्ट्र हा प्रर्जन्य छायेचा प्रदेश म्हणून ओळखला जातो तसेच वित्त पुरवठ्याची समस्या, शेतमालाल योग्य भाव मिळत नाही जागतिकीकरणाने महाराष्ट्रात शेतकरी वर्गाची स्थिती अधिक अधिक बिकट होत चालली आहे. शेतमालाच्या भावाचा प्रश्न अधिक गंभीर बनलेला आहे. खाद्येतेल, फळफळावळे, साखर, कापूस यांची आयात जागतिकीकरणाच्या प्रक्रियेमुळे सुलभ झाल्याने शेतकऱ्याला मोठ्याा स्पर्धेला तोंड द्यावे लागत आहे. अशा अनेक कारणामुळे शेतकऱ्यांसमोर मोठे संकट उभे राहिले आहे. या संकटाना तोंड देण्याची हिम्मत राहिली नसल्याने शेतकरी आत्महत्येचा मार्ग निवडताना दिसतो आहे. केवळ पॅकेजची मलमपट्टी केल्याने शेतकऱ्यांच्या आत्महत्या थांबलेल्या नाहीत. त्यामुळे शेतकऱ्यांच्या अडीअडचणी जाणून घेवून त्यांचे प्रश्न, समस्यांची जाणीव व्हावी, जगाच्या पोशिंनद्यावर प्रस्तुत शोधनिबंधात प्रकाश टाकला आहेत.

उद्देश

१) शेतकऱ्यांच्या आत्महत्येची कारणे शोधणे.
२) शेतकऱ्यांच्या आत्महत्या रोखण्यासाठी केलेल्या उपाय योजनेचा अभ्यास करून काही उपाय सुचवणे.

गृहीतके

१) कर्जबाजारीपणा हे शेतकऱ्यांच्या आत्महत्येचे प्रमुख कारण
२) निसर्ग चक्र अनियमित आहे.
३) शेतकऱ्यांची आर्थिक स्थिती चांगली नाही.
४) शासनाचे पॅकेज, कर्ज माफी हे उपाय पुरेसे नाहीत.
५) शेतमालाचे भाव व उत्पन्न खर्च यांचा ताळमेळ बसत नाही

संशोधन पद्धती

प्रस्तुत शोधानिबांधासाठी, ऐतिहासिक, वर्णनात्मक आणि विश्लेषणात्मक संशोधन पद्धतीचा अवलंब केला आहे

तथ्य संकलन

प्रस्तुत विषय आंतरशाखीय दृष्टीकोनातून अध्ययनासाठी निवडला असल्यामुळे ग्रंथ, वर्तमानपत्रे,मासिके इ.दुय्यम साधनांचा तथ्य संकलनासाठी उपयोग करण्यात आला आहे.

आत्महत्याचा अभ्यास करण्याचे श्रेय एमिल दुर्खीम या फ्रेंच समाजशास्त्रज्ञास जाते दुरखिमने आत्महत्येची वांशिक, जैवीक,

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RESEARCH ARTICLE

Synthesis, Characterization and Antimicrobial Screening of Fe(II)-Glycine Schiff Base

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Abstract: Fe(II) complex of (*E*)-2-((2-hydroxynaphthalene-1-yl)methyleneamino)acetic acid was synthesized by reacting $Fe(OAc)_2$with Schiff base ligand in stoichiometric 1:1 ratio and was characterized by elemental analysis, IR, Mass and conductance measurement. Furthermore, this complex was screened for antimicrobial activity against *E. coli*, *S. aureus*, *A. niger* and *C. albicans*.

Keywords: 2-Hydroxy-1-naphthaldehyde, Glycine, Schiff Base, Fe(II) complex, Antimicrobial activity

Introduction

In 1864, German chemist Hugo Schiff developed a new class of organic compounds[1]. The active and well-designed Schiff base ligands are considered as "Privileged Ligands" by Cozzi[2]. Schiff base ligands were synthesized by condensation of α-amino acid with aldehyde to form azomethine (–RC=N–) linkage. The metal complexes with Schiff bases play important role in biology[3,4], analytical chemistry[5,6] and industry[7,8]. The complexes of amino acid Schiff bases prepared from *o*-hydroxy aryl aldehydes were used as radiotracers in nuclear medicine, antibacterial and anticancer agents[4,9-11]. Bioinorganic chemistry is important and has great impact in coordination chemistry[12]. Haemoglobin is Fe(II) containing complex acts as a oxygen carrier. Ca(II) complexes is basic constituents of bone. Zn^{2+} ions found in three-dimensional structural framework of proteins are good examples of metal complexes in biological systems[13]. Metal ions act as redox transfer and hence metal complexes showed medicinal applications like organic compounds which could be used in drug discovery efforts[14]. They were used as therapeutic agents since 3500 BC[15]. Over the past

2018

Oppression of Women in Vijay Tendulkar's *Kamala* and *Kanyadaan*

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Abstract:

The present paper highlights women characters from Tendulkar's plays, Kanyadaan and Kamala how they are victimized by the patriarchal culture. Their minds are formed by patriarchy as they, though, know the source of their exploitation; they allow others to exploit them. Sarita, a character in Kamala comes to know her miseries, when she encounters Kamala, a bounded laborer, brought by her husband to expose to flesh market. She doesn't find differences between her and Kamala. Kamala, as being economically helpless submits herself to orders of her master, Jaysingh, Sarita's husband. Jyoti, in Kanyadaan, daughter of Seva and Nath marries a dalit, Arun, who later on exploits her to take revenge upon her family, just because they are Brahmins. Thus, she becomes the victim of casticism.

Keywords: *Victimization, Patriarchy, Otherness, Dalit.*

Men and women are biologically different form each other but the difference, formed by culture, is the main concern here. Culture, a thing must be looked into for finding the differences, on the basis of gender. It has been held responsible for the oppression of women and their secondary role in society. Man is projected as superior to women in all respects. Women are denied social, political and economical power so that their subjugation goes on and on .Even, Holy Scriptures like the *Bible*, the *Ramayana* and the *Mahabharata* have held women responsible for the loss of human race. Eve entices Adam to taste the forbidden fruit not for her personal gain but she has been made to do so by Satan. These so called Holy Scriptures have codified the inferiority of women in many respects. In computer era, culture has programmed women inferior to men by giving them secondary roles in these works. Virginia Woolf calls this culture 'patriarchal' in his work *A Room of One's Own* (1929), a lengthy essay, modeled on her lecture delivered in Cambridge in 1928. She raises an issue of space for women to display their anger towards unjust treatment; they receive from male-dominated society. She further illustrates her point calling "...language use gendered, so that when a women turns to novel writing she finds that there is no common sentence ready for her use ." (Virginia Woolf. 126). This essay, though not the first feminist work, paved the way for another frequently referred work *The Second Sex* (1949) by Simone de Beauvoir who utters 'women are made not born.' There are other feminist thinkers whose contribution cannot be neglected like, Elaine Showalter, Toril Moi, Kate Millet, Susan Gubar and Sandra Gilbert. In Indian context, social reformers like Jyotiba Phule, Savitribai Phule, and Tarabai Shinde have contributed to the emancipation of women by making them educationally and economically independent. These reformations are caused by the influence of western thoughts and education system on the social reformers, especially in 19th century.

Kamala , a play by Vijay Tendulkar based on an incident occurred in Delhi, exhibited woman and to be victims of patriarchal and capitalist society respectively but woman suffer because she tackles both at time . Man in this play, represented by the Jaysingh Jadhav, a journalist, is crushed by capitalism, exploits his wife, Sarita to prove his masculinity. Jaysingh Jadhav, a journalist who bring a woman, kamala from flesh market somewhere in Bihar, near Ranchi, to expose flesh market. He does so as he has been ignore when he bring the news of flesh market. This time he brings evidence, Kamala, to prove his stand. Vijay Tendulkar has stated the origin of this play that is news, He read the similar sort of story in one of the newspapers in Delhi. Vijay Tendulkar has juxtaposed kamala and Sarita to display victims of two different ideologies. Kamala is used as a mean to achieve profit by displaying her in the press conference which become breaking news as well as a reason for the loss of Jaysingh's job. Sarita plays the role of a typical housewife who obeys her husband without her wish, though sometimes, she raises her voice for his space in society but she was silenced by the Kakasaheb, her uncle who makes her aware of her 'submissive' aunt, who has accepted male dominated culture.

Woman is the victim of capitalist ideology which has sprouted from excessive competition among male dominated societies. It is woman who has been just commodity which is auctioned, shared and consumed through –out all the ages of human history. Jaysingh want to expose the auction of woman in India, not just for its eradication but to increase the publicity and sale of the newspaper. Manipulation of kamala's helplessness contributes to Jaysingh's success as a journalist. He doesn't think of her when he talks her to the press conference against her desire. Even if, she is so tired to attend the conference, he orders her to be there and answer the ridiculous questions, shoot at her by fellow journalist. Thus, emancipator Jaysingh becomes master Jaysingh, when she denies herself to be presented at the conference. The purpose of making kamala public is to have something spicy for newspapers rather than an effort to rescue her from flesh market. The following dialogue between Jaysingh and kamala highlights Jaysingh's shift from emancipator to master:

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Biological Activities of Synthesized Dihydropyrimidine Carboxylates and its Derivatives

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ABSTRACT: Many dihydropyrimidines and its related compounds possess various biological, medicinal and industrial activities. We have synthesized dihydropyrimidines and its derivatives and characterized them by IR, ^{1}H-NMR spectroscopy. The pharmacological activities are studied and reported herewith.

Keywords: Dihydropyrimidine carboxylates; Anti-microbial activity; Antibacterial.

INTRODUCTION: Heterocyclic compounds form a major class of organic chemistry having distinct applications in industry and plays crucial role in many biochemical processes. Heterocyclic compounds containing Oxygen, Nitrogen and Sulphur have various biological activities[1-13] such as antiviral, antibacterial, anticancer, antifungal, antioxidants, antimalarial, anti-HIV etc. Heterocyclic compounds have wide application and are present in nature such as vitamins, drugs, biological vital compounds possessing certain medicinal activities including effective action against virus, bacteria, fungi, insect and cancer. They also possess anti-inflammatory, herbicidal properties also. Some heterocyclic compounds has also found application in material science having brightening agent, dyestuff etc. Heterocyclic compounds play an important role in pharmaceuticals as well as agrochemicals. The exploitation for new biologically active heterocyclic analogues has been continuously used in research and medicinal field.

In view to the varied biological and pharmacological applications, we have synthesized dihydropyrimidines carboxylates [14] and screened for microbial activities by standard method. They showed enhanced and significant biological activities than standard one. Results of the activities reveals that compounds exhibit moderate to good antibacterial activities.

Dihydropyrimidine carboxylates- Its biological importance: Dihydropyrimidine nucleus exhibits numerous pharmacological activities. It is present in many bioactive heterocyclic compounds having various biological and clinical applications. They can be extensively used as adhesives for noble metals in medical treatment, dental field, electronic material[15]. Various drugs like nitractin, Bay-41-4109 have excellent antiviral activity (Hurst and Anna, 1962).

In early 1930's, 4-chlorophenyl-2-thio-dihydropyrimidinones was patented for protection of wools against moth (Ertan *et al*, 1933).

Adhikari *et al* synthesized dihydropyrimidines containing quinoline and showed that it possess highest biological activities against *Escherichia coli*, *Staphylococcus aureus* and *Pseudomonas aeruginosa*.

Some ester, cyanide and other substituted compounds are reported to possess good antibacterial properties[16].

MATERIALS AND METHODS: Dihydropyrimidine carboxylates was synthesized from aromatic aldehydes, urea/thiourea, diethyl malonate and ammonium chloride at 100°C followed by recrystallization from ethanol or ethyl acetate: *n*-hexane (1:3). Structure was confirmed from IR and ^{1}H-NMR spectroscopy. The antimicrobial activity evaluation was carried out using a liquid culture of four bacterial

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प्रस्तावना

सार्क या संघटनेच्या कल्पनेचा प्रथम पुरस्कार बांगला देशाचे राष्ट्राध्यक्ष झिया ऊर रहमान यांनी केला. त्यांनी १९७७ ८० दरम्यान दक्षिण आशियातील सर्व देशांना भेटी देऊन ही कल्पना विशद केलीय पण सुरुवातीस भारत–पाकिस्तान यांना ती रुचली नाहीय तथापि नोव्हेंबर १९८० मध्ये त्यांनी दक्षिण आशियातील देशांना या संघटनेच्या आवश्यकतेची बाब पत्र पाठवून स्पष्ट केली. तिला अनुसरून एप्रिल १९८१ मध्ये या संदर्भात कोलंबो (श्रीलंका) येथे परराष्ट्र सचिवांची बैठक झाली. अखेर बऱ्याच विचारविनिमयानंतर या संघटनेची कल्पना राष्ट्रप्रमुखांच्या पातळीवर मान्य झाली. त्यानंतर परराष्ट्र सचिव पातळीवर या संघटनेसंबंधी १९८१ ते १९८३ दरम्यान अनेक बैठका झाल्या आणि त्यास अंतिम स्वरूप प्राप्त झाले. १ ते २ ऑगस्ट १९८३ रोजी संघटनेचा जाहीरनामा तयार होऊन तिची बैठक डाक्का (ढाका) येथे ७ डिसेंबर १९८५ रोजी झाली. तिथेच संघटनेचा जाहीरनामा प्रसिद्ध करण्यात आला आणि सांस्कृतिक, सामाजिक, आर्थिक क्षेत्रांत परस्परांच्या सहकार्याची अपेक्षा व्यक्त करण्यात आली. तसेच महिलांचे प्रश्न व त्यांचा सहभाग यांसंदर्भात शिलाँग (८ मे १९८६) आणि बंगलोर (१५ नोव्हेंबर १९८६) अशा दोन स्वतंत्र परिषदा झाल्या. त्यांत महिलांच्या शिष्यवृत्त्या, अभ्यासवृत्त्या, आर्थिक सहकार्य, महिला आणि मुले यांच्या भवितव्याचा तसेच दहशतवाद व स्त्रियांचे लैंगिक शोषण यांच्याशी मुकाबला करण्याविषयी एकमत झाले. दक्षिण आशिया उपखंडात एक सामूहिक बाजारपेठ निर्माण करणे हा तिच्या स्थापनेमागचा प्रमुख उद्देश होता. त्यासाठी दक्षिण आशियाई राष्ट्रांमध्ये आर्थिक सहकार्य वाढीस लागावे म्हणून सार्कचे व्यासपीठ निर्माण करण्यात आले. स्थापनेच्या वेळी भारत, बांगलादेश, पाकिस्तान, नेपाळ, भूतान, श्रीलंका आणि मालदिव असे सात सदस्य देश होते. पुढे २००७ साली अफगाणिस्तानला सार्कचा आठवा सदस्य देश म्हणून मान्यता देण्यात आली. याशिवाय इतर नऊ देश व संघटना अशा आहेत की ज्यांना सार्कमध्ये निरीक्षकाचा दर्जा देण्यात आला आहे. त्यामध्ये चीन, अमेरिका, युरोपियन महासंघ यांचा मुख्यत्वे समावेश आहे.

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सीमावादाचे भारत व चीनवरील परिणाम

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प्राचीन काळापासून भारत आणि चीन यांच्यात परस्पर संबंध होते. भारतामधून चीनमध्ये धर्मप्रचारासाठी गेलेल्या बौध भिक्षुकांनी चीनमध्ये बौद्ध धर्माचा प्रचार केला. पाश्चात्य गुलामगिरीतून मुक्त झालेली हि आशियातील दोन्ही राष्ट्रे आकार व लोकसंख्याच्या मानाने सर्वात मोठी होती. भारत आणि चीन दरम्यान सीमा स्पष्टपणे मर्यादित नाही. त्याच्या ३४८८ किमी लांबीच्या काही भागासह, परस्पर सहमत असलेल्या प्रत्यक्ष नियंत्रण कक्षाची (एलएसी) मर्यादा नाही. स्वातंत्र्यानंतर भारताने ब्रिटिशांपासून वारसा निश्चित केली होती, परंतु चीनच्या दृष्टिकोनाशी विरोधात होते. दोन नवीन नवनिर्मित प्रजासत्ताकांच्या दरम्यान सीमा प्रश्न ब्रिटिशांनी विवादित सोडल्याचे चीनला वाटले. भारत—चीन सीमा तीन विभागात विभागली गेली आहे, उदा. पश्चिम, मध्य आणि पूर्व. चीनमध्ये आक्टोबर १९४९ मध्ये साम्यवादी राजवट प्रस्थापित झाली तेव्हापासून दोन्ही राष्ट्रांच्या संबंधात सुधारणा होऊ लागली. केवळ शेजार म्हणून साम्यवादी चीनला सर्वप्रथम मान्यता दिली एव्हढेच नव्हे तर भारताने चीनला संयुक्त राष्ट्रसंघाचे कायमस्वरूपी सभासदत्व मिळून दिले. १९५६ पासून तिबेट आमचे आहे असे चीनने सांगण्यास सुरुवात केली. भारताने हा प्रश्न शांततेने सुटला पाहिजे अशी भूमिका घेतली. यावर चीनने भारत चीन दरम्यानची सीमा कायम करण्याची इच्छा बोलून दाखवली व आपल्या फौजा तिबेटमध्ये घुसवल्या व चीनने तिबेट आपल्यात सामील करून घेतला. चीनच्या या कृत्यामुळे संबंधात वितुष्टपणा आला नंतर १९५६ पर्यंत उभय राष्ट्रातील संबंध सुधारले. परंतु याच वर्षी तिबेटमध्ये मोठ्या प्रमाणात चीनच्या विद्रोहाला सुरुवात झाली व भारत चीन संबंध गढूळ झाले.

उद्दिष्टे

१ भारत आणि चीन यांच्यातील सीमा वादाच्या कारणाचा अभ्यास ह्या करणे

२ उभय राष्ट्रातील सीमावादाच्या परिणामाचा अभ्यास करणे

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भारत आणि चीनची आशियातील भूमिका

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आशिया हा पृथ्वीवरील सर्वात मोठा महाद्वीप आहे. हवामान आणि भौगोलिक वैशिष्ट्ये यात मोठ्या प्रमाणात विविधता आहे. भारत आणि चीन मध्ये जगातील एकूण लोकसंख्येपैकी एक–तृतीयांश लोकसंख्या आहे. उभय देशांची राजकीय विचारसरणी आणि रणनीतिक उद्दिष्टे परस्पर विरोधी आहेत. आशियात सर्वात मोठी महाद्वीपीय अर्थव्यवस्था आहे आणि ते वेगाने वाढणारे आर्थिक क्षेत्र आहे. इतिहासकार अँगस यांच्या मते भारत इ.स.पू. १००० दरम्यान जगातील सर्वात मोठी अर्थव्यवस्था होती. विसाव्या शतकाच्या उत्तरार्धात जपानने सोव्हिएत युनियनला मागे टाकून आशियातील सर्वात मोठी अर्थव्यवस्था झाली होती. २०१० मध्ये चीनने जपानला मागे टाकून आशियातील सर्वात मोठी अर्थव्यवस्था बनविली. २०१८ पर्यंत चीन, जपान, रशिया भारत, दक्षिण कोरिया, इंडोनेशिया आणि तुर्की हे आघाडीवर आहेत. चीनमधील हळूहळू राजकीय, आर्थिक आणि लष्करी उदय हे संपूर्ण आशिया आणि त्याहूनही जास्त निर्णय निकालांमध्ये एक प्रमुख केंद्रबिंदू ठरले आहे. परंतु बऱ्याचदा चर्चेत पराभूत होऊनही भारत धोरणात्मक उद्दीष्टे साधण्यात यशस्वी झाला आहे. भारत आणि चीनने गेल्या काही वर्षादरम्यान आशियाच्या दोन प्राचीन संस्कृती आणि उत्थान झालेल्या आशियाई महाशक्तींच्या दरम्यान एक नवीन मॉडेल विकसित केला आहे. या मॉडेलमध्ये भागीदारीसाठी एक मल्टि–आयामी दृष्टिकोन आहे जे सीमा आणि विवाद यासारख्या जटिल समस्यांना व्यापार आणि गुंतवणूकीसारख्या द्विपक्षीय संबंधांच्या इतर महत्त्वाच्या भागावर प्रभाव पाडण्यास परवानगी देत नाही आणि आंतरराष्ट्रीय परिस्थिती मधील घनिष्ठ सहकार्यासाठी परवानगी देत नाही. यावेळी, दोन्ही देशांनी विविध क्षेत्रांशी संबंधित असंख्य संवाद यंत्रणेची स्थापना केली आहे. सहयोगी संबंध निर्माण करण्यासाठी भारत आणि चीन प्रयत्न करत आहेत आणि शतकांपासून त्यांच्या सांस्कृतिक संबंधांची उत्पत्ती करण्याचा प्रयत्न करीत आहेत.

उद्दिष्टे

१) भारत व चीन यांची आशियातील भूमिकेचा अभ्यास करणे.
२) उभय राष्ट्रांचा एकमेकावरील परिणामाचा अभ्यास करणे.

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साहित्य, समाज व संस्कृती : एक आकृतिबंध

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प्रास्ताविक :

कोणत्याही समाजामध्ये जेंव्हा दोन देश, दोन समाज किंवा दोन व्यक्ती एकत्र येत असतात; तेंव्हा नव्या सांस्कृतिक जीवनाची सुरवात होत असते. कोणतीही संस्कृती ही एकाकी नांदत नसते; कारण प्रत्येक संस्कृतीमध्ये युगायुगांचे सहजीवन दडलेले असते. हजारो वर्षांच्या उदरात लाखो मानवी समुदायाच्या जगण्या-मरणातील संघर्ष, सलोख्याच्या वातावरणातून टिकून राहिलेले आहेत. अशा या अमर मानवी मूल्यांनाच 'संस्कृती' असे नावं आपल्याला देता येईल. माणसाच्या वैयक्तिक आणि सामाजिक जीवनात केवळ भौतिक सुविधा, शारीरिक क्रिया आणि घटनाच महत्त्वाच्या नसतात; तर व्यक्तींची अर्थपूर्ण कृती आणि अभिव्यक्ती ह्या सुद्धा तेवढयाच महत्त्वपूर्ण ठरत असतात. जन्मतः कोणतीही व्यक्ती आपल्या सोबत 'संस्कृती' घेऊन येत नसते. 'संस्कृती' ही परंपरेने एका पिढीकडून दुसऱ्या पिढीकडे चालत आलेली असते. मानवाच्या मूलभूत आणि भोतिक गरजातून संस्कृतीची निर्मिती होत असते. ज्याप्रमाणे - तृष्णाक्षुधांतून अन्नव्यवस्था, प्रजननातून नातेसंबंध, शारीरिक सुखाच्या इच्छेतून निवारा, आरोग्य विषयक बाबिंमधून वैद्यक इत्यादी. कोणत्याही समाजाची प्रगती ही त्या समाजात निर्माण होणारे साहित्य आणि त्या समाजाची प्रचलित संस्कृती यावर अवलंबून असते; ज्या देशाची संस्कृती उच्च दर्ज्याची आहे; त्या देशाचे साहित्यही उच्च दर्जाचे असते. तेथील सामाजिक, ऐतिहासिक, शैक्षणिक, भौगोलिक, आर्थिक, सांस्कृतिक वातावरण हे संस्कृतीच्या वाढीसाठी पोषक असते. साहित्य, समाज, आणि संस्कृती यांचा एकमेकांशी परस्पर संबंध असतो. यातूनच एक चांगल्या समाजाची आणि चांगल्या संस्कृतीची ओळख होत असते.

हिंदू संस्कृती :

'संस्कृती' ही संज्ञा अतिशय गुंतागुंतीची असून त्यात अनेक गोष्टींचा समावेश होतो. अनेक अभ्यासकांनी संस्कृतीची व्याख्या करून 'संस्कृती' या शब्दाचा अर्थ उलगडून दाखवण्याचा प्रयत्न केलेला आहे. "संस्कारपूर्ण व संस्कारमय जीवन जगण्याची देशकाल विशिष्ट रित म्हणजे संस्कृती"[१] अश्या प्रकारची व्याख्या इरावती कर्वे यांनी केली; तर तर्कतीर्थ लक्ष्मणशास्त्री जोशी यांनी "मनुष्य व्यक्तिशः व समुदायशः जी जीवन पद्धती निर्माण करतो; ती पद्धती व तो अविष्कार संस्कृती होय"[२] एडवर्ड बी. टायलर यांच्या मते "संस्कृती ही एक अशी संकीर्ण समग्रता आहे; की ज्यात ज्ञान, श्रद्धा, कला, नीती, कायदा, रूढी या व अश्या इतर पात्रतांचा आणि सवयींचा समावेश होतो; या गोष्टी व्यक्तीने समाजाचा एक सभासद घटक म्हणून संपादित केलेल्या असतात" संस्कृतीचे स्वरूप हे अत्यंत व्यापक आणि गुंतागुंतीचे असते. ही बाब वरील व्याख्या वाचल्यावर लक्ष्यात येते. याबरोबर व्यक्तीचा किंवा समाजाचा स्वाभाविकपणे होणारा विकास आणि अन्य संस्कृतीच्या सहवासाने एकमेकात होणारे बदल; या दोन्ही मार्गाने संस्कृतीत परिवर्तन होत असते. भिन्न भिन्न संस्कृती ज्यावेळी एकत्र येतात; तेंव्हा एकमेकात क्रिया प्रतिक्रिया होते; आणि त्यामधून संस्कृतीचा विकास होतो. म्हणजे

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महिलांचे शिक्षण व मानवी हक्क

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प्रस्तावना

मानव हा समाजशील प्राणी आहे. समाजाचा तो अविभाज्य भाग आहे. मानवाला जगण्यासाठी व व्यक्तिमत्व विकासासाठी हक्कांची आवश्यकता असते. प्रा. हेरॉल्ड लास्की यांच्या मते हक्क म्हणजे सामाजिक जीवनाची अशी परिस्थिती होय की ज्याशिवाय कोणत्याही व्यक्तीला स्वतःची जास्तीत जास्त प्रगती घडवून आणता येत नाही. टी. एच. ग्रीन यांच्या मते, मानवाच्या आंतरिक विकासासाठी आवश्यक असलेली बाह्य परिस्थिती निर्माण कारणे म्हणजे हक्क होय. मनुष्याला स्वतःचा विकास करण्यासाठी हक्क आवश्यक असतात हे अधिकार माणसाला जन्मतःच प्राप्त झाल्याने कुणीही ते हिरावून घेऊ शकत नाही. हक्कांचा विकास सॅक्रेटीस, प्लेटो, हॉब्ज, लॉक, रुसो व इंग्लंड मधील मानवी हक्कासंबंधी सनद येथून खर्या अर्थाने झाला. दुसऱ्या महायुद्धानंतर मानवाधिकार संकल्पना अधिक प्रभावी झाली. युद्धकाळात जनतेची झालेली कत्तल, नरसंहार, मानवी हक्काची झालेली कुचंबना. यातून विश्वस्तराबर मानवी हक्काना पाठबळ मिळून १९४८ साली संयुक्त राष्ट्र संघाकडून १० डिसेंबर रोजी मानवी हक्कांचा जाहीरनामा घोषित केला. या जाहीरनाम्यात कलम २६ हे शिक्षणासंबंधी आहे. किमान प्राथमिक व मुलभूत टप्यातील शिक्षण मोफत व सक्तीचे असेल. शिक्षणाचा रोख मानवी व्यक्तिमत्वाच्या पूर्ण विकासाकडे आणि मानवी हक्कासाठी आदरभाव दृढ करण्याकडे असेल यामुळे सर्व राष्ट्रांमध्ये वांशिक, धार्मिक गटात सामजस्य, सहनशीलता आणि मैत्रीचे संवर्धन करेल. भारतीय घटनेत देखील या कलमाचा परिणाम झाला आहे. भारतीय घटनेच्या कलम २१ अ, २९, ३० व ४५ नुसार शिक्षणाचा हक्क प्रदान करण्यात आला. सर्व भारतीयांना शिक्षणाचा हक्क मिळावा म्हणून भारत सरकारने २००९ साली ६ ते १४ वर्ष वयाच्या मुलांना मोफत व सक्तीचे शिक्षण कायदा केला. शिक्षण हा स्वातंत्र्याचा पाया आहे. शिक्षण हा मानवाला प्राप्त झालेल्या हक्कामधील सर्वात महत्वाचा हक्क आहे. शिक्षणामुळे मानवाला निश्चित दिशा मिळते. या हक्क शिवाय जीवनाला अर्थ उरत नाही. शिक्षण हि आज काळाची गरज बनली आहे. असे असले तरी स्त्री शिक्षणाबाबत उदासीनता दिसून येत. स्त्रियांचा हक्काबाबात फ्रेंच राज्य क्रांतीच्या संदर्भात मेरी वुलस्टोन क्राफ्टयांच्या द व्हींडीकेशन ऑफ राइट्स ऑफ वुमेन या ग्रंथाने स्त्रियांच्या हक्कांना वाचा फोडली. १८६७ मध्ये ब्रिटीश पार्लमेंट मध्ये जॉन स्टुअर्ट मिल्सने स्त्रियांना मतदानाचा हक्क असावे अशी मागणी केली. १८६८ ते १८७१ च्या दरम्यान फ्रान्समध्ये माराया देशम्स यांच्या नेतृत्वाखाली स्त्री हक्कासाठी चळवळी सुरु झाली व स्त्रियांना मतदानाचा अधिकार मिळाला. अशा प्रकारे पाश्चात्य जगात स्त्रीला हक्क मिळून गुलामगिरीतून स्वातंत्र्याकडे प्रवास सुरु झाला.

उद्दिष्टे

१) महिलांच्या हक्कांचा आढावा घेणे.
२) महिलांच्या शैक्षणिक स्थितीचा अभ्यास करणे

गृहीतके

१ लैंगिक समानता सक्षम होत आहे .
२ स्त्रियाची आर्थिक स्थिती आणि समाजातील त्यांची स्थिती वाढवत आहे.
३ लहान आणि नियोजित कुटुंबाच्या फायद्यांबद्दल जागरुकता निर्माण झाली आहे.
४ महिलांच्या विवाहाचे वय वाढविण्यात मदत झाली आहे.
५ शिक्षित स्त्रिया त्यांच्या मुलांना चांगल्या प्रकारे विकसित करण्यास सक्षम होत आहेत.
६ महिलाना त्यांचे समाधान आणि प्रतिष्ठा मिळण्यास मदत झाली आहे.
७ कौटुंबिक व सामाजिक विकास होत आहे.

संशोधन सामग्री

प्रस्तुत संशोधन लेखात दुय्यम स्रोतांचा उपयोग करण्यात आला असून त्यात प्रकाशित, अप्रकाशित लिखाण, संदर्भ ग्रंथ, नियतकालिके, मासिके, वृत्तपत्रे, इंटरनेट इ. साधनाचा वापर करण्यात आला आहे. विषयाची मांडणी करण्यासाठी वर्णनात्मक व विश्लेषणात्मक पद्धतीचा आधार घेतला आहे.

संशोधन विषयाचे विश्लेषण

भंडी जंमी ए भंडी निमिए भंडी मंगणू विआहू,
भंडहू होवे दोसती भंडहू चलै राहू,
भंडू मुवा भंडू भालीऐ भंडी होवे बंधानु,
सो किउ मंदा आखीऐ जितू जंमही राजन.

– गुरु नानक

अर्थात प्रत्येक माणसाचा जन्म हा स्त्रीच्या पोटीच होतो. स्त्रीशिवाय विवाह, संसार, नातीगोती, वंश वृद्धी शक्य नाही. त्यांचा अपमान करणे अयोग्य आहे. वैदिक युगाच्या काळात ३,००० वर्षांपूर्वी स्त्रियांना उच्च स्थान देण्यात आले होते.त्यांनी आपल्या पुरुषांच्या बरोबरीने समान भूमिका पार पाडली. ज्या महिलांनी 'उपयन' पार पाडला, जो आजही पुरुषांसाठीच आहे.वैदिक भाषेत वैद, अंब्रनी, रोमासा, गर्गी, खोमा या वैदिक युगातील महिला विद्वान व ऋषींचा उल्लेख या दृश्याशी निगडित आहे.या अत्यंत हुशार आणि विद्वान महिला, ज्यांनी वैदिक अभ्यासाचा मार्ग निवडला होता त्यांना 'ब्रह्मवादिनी' असे संबोधले गेले होते आणि विवाहित जीवनासाठी शिक्षणाची निवड करणार्या स्त्रियांना 'सद्योवाधस' असे म्हणत. स्त्री आणि पुरुष या दोघांना समान शिक्षणाचा अधिकार होता. वैदिक काळातील स्त्रियांना भारतात शिक्षण मिळाले असले तरी ते हळूहळू हे अधिकार गमावले. भारतीय स्त्रीचे धर्मातील स्थान ह्या बाबतीत विविधता आहे हिंदु, शिख, मुस्लीम, ख्रिश्चन या सर्वांच्या धार्मिक पद्धती वेग वेगळ्या आहेत. हिंदू धर्मात मनुस्मृति चा प्रभाव दिसून येतो. त्या बाबतीत स्त्रियांना कोणतेही अधिकार नव्हते धार्मिक रूढींनी विणामुळे स्त्रियांना चूल आणि मूल व चार भिंतीच्या आत ठेवले जात असे. स्त्रियांनी एक पतित्व स्वीकारावे

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महिला आणि राजकारण

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राज्यशास्त्र विभाग, वाणिज्य कला, वाणिज्य व विज्ञान महाविद्यालय, सटाणा, ता. सटाणा (नाशिक)

प्रस्तावना

स्त्री जीवनाच्या एक अगदीकी राजकीय अंग महत्वाचे आहे. राजकीय व प्रशासकीय निर्णयाचा परिणाम स्त्री जीवनावर होतो. म्हणून त्याचा अभ्यास करणे क्रम प्राप्त ठरते. १९६० च्या दशकात अमेरिकामध्ये स्त्रीवादाचा प्रारंभ झाला. १९७-च्या आतराष्ट्रीय स्त्री वर्षापासून सामाजिक व आर्थिक दर्जाविषयक अभ्यासाला सुरुवात झाली. मात्र या काळात स्त्रीयांचे राजकीय सहभाग,भूमिकाचा अल्प प्रमाणात सुरुवात झाली. १९८० च्या दशकात शास्त्रीय अभ्यासास प्रारंभ झाला. ९० च्या दशकापासून लोकशाही, लोकशाहीकरण आणि स्त्री सक्षमीकरण हे जगतीक पातळीवरील परीवर्तनीचे शब्द बनले. लोकशाहीकरणासाठी देशोदेशी अनेक उठाव झाले. या सर्व उठावात स्त्रियांचा सहभाग होता. स्त्रियांचा हा सहभाग लोकशाहीसाठी बळकटी देणारा होता. स्त्रियांच्या राजकारणातील वाढत्या सहभागामुळे लोकशाही राजकारण गुणात्मकदृष्ट्या बदलत असा आशावाद निर्माण झाला. स्त्रीयांच्या वाढत्या सहभागामुळे राजकारणाचा नैतिक स्तर उंचावेल अशी उमेद निर्माण झाली. मानवतावादी चळवळी,शांततावादी,स्त्रीयांच्या चळवळी, पर्यावरणवादी, शेतकरी, विकासाच्या चळवळी या प्रकारच्या अनेक चळवळीतून स्त्रियांचे मुलभूत प्रश्न उपस्थित केले गेले. स्त्रीयांच्या राजकीय सक्रीयतेमुळे सार्वजनिक प्रश्नाकडे पाहण्याचा एक नवा दृष्टीकोन निर्माण झाला. भारतात महिला आरक्षणामुळे स्थानिक शासन संस्थामध्ये स्त्रियांचे प्रतिनिधित्व वाढले. महिला सदस्यानी स्थानिक प्रश्नाचे रूढ अग्रक्रम बदलून मुलभूत प्रश्नांना प्राधान्य देऊ लागल्या. रचनात्मक आणि संघर्षात्मक राजकारणात स्त्रियांनी आपली क्षमता व कर्तव्यगारी सिद्ध केली. स्त्रिया ज्या प्रमाणात स्थानिक राजकारणावर प्रभाव पडू शकतात तितक्या प्रमाणात राज्यपातळी आणि देशपातळीवर फारसा प्रभाव पडू शकल्या नाहीत. परिणामत निर्वाचनात्मक राजकारण हे महिला सबलीकरणाची भाषा कितीही गोड असली तरी ते ठराविक चौकटीतच रूढ पद्धतीने घडताना दिसते. संस्थानात्मक राजकारण, निर्वाचनात्मक राजकारण आणि जनादोलनाचे राजकारण हे लोकशाहीकरणाचे तीन प्रमुख आयाम आहेत. लोकशाही अधिक आशयघन आणि समृद्ध कराची असेल तर संस्थात्मक आणि आदोलनात्मक राजकारणाबरोबरच निर्वाचनात्मक राजकारण भ्रष्टाचारमुक्त, बहुबल मुक्त आणि वित्त बल मुक्त होणे गरजेचे आहे. महिला सबलीकरणाची भाषा बोलणारे राजकीय पक्ष राज्य आणि देशपातळीवर निवडणुकीमध्ये स्त्रियाना प्रतिनिधित्व देताना उघड उघड हात आखडता घेतात. एका बाजूला दलित, आदिवासी, बहुजन, मुस्लीम, ग्रामीण आणि शहरी स्त्री मतदाराचे प्रमाण सातत्याने वाढत असताना राज्य आणि केंद्र पातळीवर प्रतिनिधित्व मिळण्यास अडथळा निर्माण होताना दिसतो.

उद्देश

१) महिलांच्या राजकीय स्थितीचा आढावा घेणे
२) महिलांच्या राजकीय जाणीव जागृतीचा अभ्यास करणे
३) महिलांच्या राजकीय सहभागाचा अभ्यास करणे.

गृहीतके

१) महिलाना आपल्या राजकीय हक्काची जाणीव होत आहे.
२) महिलांचा राजकीय सहभाग वाढत आहे.
३) महिला महत्वाची राजकीय पदे भूषवत आहेत.
४) महिलामध्ये सकारात्मक दृष्टीकोन व आत्मविश्वास निर्माण होत आहे.

संशोधन पद्धती – महिलांचा राजकारणातील भूमिकांचा अभ्यास करण्यासाठी द्वितीय तथ्य सामग्री यात प्रामुख्याने प्रस्तुत विषयातील संदर्भ ग्रंथ,मासिके व वर्तमान पत्राचा आधार घेण्यात आला आहे. विषयाची मांडणी करण्यासाठी वर्णनात्मक व विश्लेषणात्मक पद्धतीचा आधार घेतला आहे.

संशोधन विषयाचे विश्लेषण

भारतीय संस्कृतीमध्ये अगदी सुरवातीपासून स्त्रीला आदराचे स्थान होत. मात्र हे स्थान काळाबरोबर गडप झाले व स्त्रीला चूल आणि मुल व चार भिंतीच्या खोलीत बंदिस्त करून तिला उपभोग्य वस्तू बनवली. स्वातंत्र्यकाळापासून पुरुष वर्गाचे राजकारणावर वर्चस्व राहिले आहे. स्त्री हा समाजातील निम्मा घटक आहे. तिला राष्ट्रीय विकासात भाग घेता यावे,समाज कार्यात आपले अमुल्य योगदान देता यावे व स्त्रियाना समाजाचे प्रतिनिधित्व करता यावे म्हणून भारतीय घटनाकारानी समान मताधिकार व राजकीय स्वातंत्र्य देण्यात आले. मात्र यामुळेदेखील सहभाग न वाढल्याने स्थानिक शासन संस्थेमध्ये महिलासाठी आरक्षणाची व्यवस्था केली. त्यामुळे आज महिला आपला उबरठा ओलांडून राजकारणात उतरल्या आहेत.

राजकारण व राजकीय प्रक्रिया म्हणजे सत्ता संपादासाठी संदिसाधू खेळ नसून ते काही विचारासाठी, जीवन मुल्यासाठी, समाज परिवर्तनासाठी, सामाजिक न्याय मिळवण्यासाठी ज्या चळवळी च लढे लढले गेले त्यास राजकीय सहभाग म्हणता येईल. राजकारण म्हणजे निर्णय निर्धारण प्रक्रियेवर प्रभाव पाडण्याची क्षमता होय. महिलांची राजकाणातील सहभाग व त्याची भूमिका राजकीय विकासातील महत्वाचा भाग आहे. आधुनिक लोकशाहीची आधारशीला म्हणजेच राजकीय सहभाग होय. प्राचीन काळापासून राजकीय व्यवस्थेवर एका विशिष्ट वर्गाचे विशेषत पुरुष वर्गाची मक्तेदारी राहिल्याने महिला राजकारणापासून दूर राहिल्या. अज्ञान, निरक्षरता, परंपरा यामुळे महिलाचा सहभाग फारसा दिसून येत नाही. महिलाचा राजकारणातील सहभाग पुरुषाच्या तुलनेत फारच उशिरा झाला. भारताला स्वातंत्र्य मिळाल्यानतर खर्या अर्थाने महिलाचा राजकीय क्षितिजावर उदय होण्यास प्रारंभ झाला. राजकारणात महिलाचा सहभाग दोन मार्गाने होतो. १. मतदानातून २. प्रत्यक्ष निवडणुकातून. याचा बरोबर राजकीय पक्ष, प्रसार माध्यमे, हितसंबधी गट, दबाव गट, सभा, संमेलने, चळवळी, मोर्चे यामधून देखील महिलांचा राजकीय सहभाग होतो.

ब्रिटीशकाळात महिलांना मतदानाचा अधिकार नव्हता. श्रीमती एनी बेझंट यांनी महिलांना पुरुषाबरोबर मतदानाचा अधिकार मिळावा यासाठी १९१७ मध्ये ब्रिटीश शासनाकडे प्रस्ताव केला होता. भारताला स्वातंत्र्य मिळाल्यानंतर महिलांना पुरुषाबरोबर समान मतदानाचा अधिकार मिळाला. असे असले तरी महिला मत मूल्याला महत्व देण्यात येत नाही. महिलांना आपल्या मत मूल्याचे काहीही वाटत नाही, मतदान केलेच पाहिजे असे त्यांना वाटत नाही. ग्रामीण

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निर्मला सिंह की कहानियों में संक्रमणकालीन जीवन मूल्यों की स्थिति : दशा और दिशा

(समकालीन साहित्य और सामाजिक संदर्भ)

डॉ.धोंगडे भारती बालकृष्ण
(दूरभाष-०९०२८३३१६८७)
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प्रा.शांताराम वळवी
(दूरभाष-०९४२०१७९३९४)
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मविप्र समाज संचालित, कला, वाणिज्य एवं
विज्ञान महाविद्यालय, नांदगांव जि- नाशिक

हिंदी कहानियों का प्रारंभ सभी इतिहासकारों ने एक स्वर से 'सरस्वती' के प्रकाशन से माना है। 'सरस्वती' के प्रकाशन के दस-बारह वर्ष पूर्व हिंदी कहानियों की स्वरुप-संरचना का प्रारूप लगभग तैयार हो गया था। अंग्रेजी और संस्कृत के साहित्य विधाओं के तमाम कथानकों को लेकर हिंदी में कहानियाँ लिखी जाने लगी। यात्रा एवं आत्मकथाओं से संबंधित कहानियाँ अधिक लिखी गई। बाद में काल्पनिक कहानियों के साथ-साथ ऐतिहासिक, सामाजिक, सांस्कृतिक आदि चेतना को लेकर कहानियों के कथानकों में विस्तार देखा जा सकता है।

आचार्य रामचंद्र शुक्लकृत 'ग्यारह वर्ष का समय' शिल्पविधान की दृष्टि से हिंदी की प्रथम मौलिक कहानी का स्थान प्राप्त किया है। और फिर आगे चलकर अनगिनत मौलिक कहानियों की बड़ी समृद्ध हिंदी कहानी रचना-परंपरा विकासित हुई। बांग्ला-अंग्रेजी आदि से भी कई अनुवाद हुए। सन् १९०६ में बंगमहिलाकृत 'सरस्वती' में प्रकाशित 'दुलाईवाली' कहानी तो हिंदी की मौलिक कहानियों की दौड़ में भी बहुत आगे रही। जयशंकर प्रसादकृत सन् १९०९ में काशी से 'इंदु' का प्रकाशन भी हिंदी कहानियों का अत्यंत प्रभावी मौलिक रूप कहा जा सकता है। प्रसादकृत 'आग', 'चंदा', 'गुलाम', 'चित्तौर-उद्धार' आदि प्रसिद्ध कहानियों के बाद सन् १९१८ में काशी से 'हिंदी गल्पमाला' मसिक पत्रिका में नियमित कहानियों का प्रकाशन होने लगा। भारतेंदु युग में लघुकथानकों को लेकर राजा शिवप्रसाद 'सितारे हिंद' लिखित 'राजा भोज का सपना', राधाचरण गोस्वामी की 'यमलोकयात्रा' आदि रचनाओं में कहानी के आवश्यक गुण, तत्वों के अभाव के बावजूद अंतर्बाह्य स्वरूप कहानी का था। किंतु पश्चिमी कहानी साहित्य का अत्याधिक प्रभाव इन रचनाओं में देखा गया। 'प्रेमचंद पूर्व का समस्त रचनात्मक साहित्य प्रायः आदर्शात्मक, अंतर्विरोध के बीच गुजरता हुआ दिखाई देता है। एक ओर संस्कृत साहित्य के काव्य सिद्धांत हैं, हिंदू धर्म और संस्कृत का गौरवमय अतीत है, तभी दूसरी ओर धीरे-धीरे प्रकाश में आ रही है एक नई सभ्यता, जिसे स्वीकारना आसान नहीं था, क्योंकि वह काल स्वतंत्रता के पूर्व का था। आधुनिक रहन-सहन तथा ऐसी ही कई बातें थीं, जिनके माध्यम से भारतीय समाज में एकाएक परिवर्तन हुआ। तमाम विरोधों और अंतर्विरोधों के बावजूद!'

आरंभिक हिंदी कहानियों के कथानकों में आकस्मिक एवं दैवी घटनाओं की भरमार रहा करती थी। किंतु प्रेमचंद की कहानियों के समस्त विषय-वस्तु समाज के सभी लोगों के अंतर्बाह्य आचरणों, व्यवहारों, मूल्यों संस्कारों से जुड़े हुए थे, जिससे हिंदी कहानी साहित्य जनसामान्यों के वास्तविक जीवन चित्रण करनेवाला बन गया। प्रसाद की आँधी, आकाशदीप, पुरस्कार, व्रतभंग जैसी कहानियाँ भी जनसामान्यों को नायक बनाती हैं। इसका परिणाम यह हुआ, कि प्रेमचंदोत्तर कहानी साहित्य अत्यंत उन्नत, आशयसंपन्न एवं परिपक्व हुआ। उसमें मानवता की महत्ता और विकास की अत्यंत गहरी बात हिंदी कहानियों में होने लगी। 'मनोविश्लेषण के द्वारा मनुष्य की आतंरिक गुत्थियों को सुलझाना या समस्याओं के निदान की खोज करना आदि इस काल(प्रेमचंदोत्तर

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महात्मा जोतीबा फुले यांचे वाङ्मयीन योगदान

प्रा. नामदेव महादू गावित
मराठी विभागप्रमुख,
कला, वाणिज्य व विज्ञान महाविद्यालय नांदगाव

प्रास्ताविक:

महात्मा जोतीबा फुले हे समाज परिवर्तनाच्या चळवळीचा पाया घालणारे पहिले समाज सुधारक होते. शेती आणि शेतकरी स्त्री शिक्षण, समाजजीवन आणि धर्म यांच्यातील अंत:सबंध निरनिराळ्या कारणांनी समाजजीवनात आणि तळागाळातील समाजाचे होणारे आर्थिक व सामाजिक शोषण या मुद्यांवर महात्मा फुले यांनी मांडलेले लेखन आजही तेवढेच महत्त्वाचे आहे. महात्मा जोतीवा फुले यांनी ज्ञानेश्वरी, तुकाराम गाथा, भागवत, पुराणे, मार्टीन ल्युथर, प्रो. विल्सन सर, विल्यम जोन्स आदींनी हिंदू धर्मावर लिहलेली चरित्र, पुस्तके वाचली होती; असे महात्मा फुले यांचे चरित्र लिहणारे श्री पंढरीनाथ पाटील यांनी म्हटले आहे. महात्मा फुले यांनी बुद्ध, बसवेश्वर, तीर्थकर व धर्मसुधारक यांच्यावरील लेखन वाचले असावे हे त्यांनी केलेली भाषणे आणि लेखन यामधून दिसून येते. त्यांच्या लेखनावर आणि विचारसरणीवर टॉमस पेन या अमेरिकन विचारवंताच्या 'द एज ऑफ रिझन' या ग्रंथाचा विशेष प्रभाव पडलेला दिसतो. यातूनच त्यांना हिंदू समाज आणि हिंदू धर्मातील विषमता ही ईश्वरनिर्मित नसून ती मानवनिर्मित आहे हे कळून चुकले. अश्यातच त्यांच्या परांजपे नावाच्या एका मित्राच्या लग्नात वराती मागून जाताना एका सनातनी माणसाने त्यांना 'शुद्र' म्हणून हिणवले. आणि त्यांना तेथून निघून जाण्यास सांगितले. या अपमानाने ते व्यतिथ झाले, त्यांना खऱ्या अर्थाने जातीयवादाची भयंकर तीव्रता काय असते; यांचा उलगडा झाला. त्यातूनच शुद्रातीशुद्राना शिक्षण देण्याचा विचार त्याच्या मनात रुजला. आणि तो कृतीत आणण्यासाठी त्यांनी रणशिंग फुंकले.

महात्मा फुले यांच्या लेखन कार्यास प्रारंभ :

महात्मा फुले हे समाज कार्य करत असतानाच त्यांनी लेखनाचा आधार घेऊन समाजातील अनिष्ट परंपरा, रूढी, रीतीरिवाज यावर प्रकाश टाकण्यास प्रारंभ केला. त्यांचा हेतू एवढाच की त्यातून लोकांनी बोध घेऊन आपले जीवन चांगले जगावे. या हेतूने इ.स. १८५५ साली त्यांनी 'तृतीय रत्न' या नावाचे नाटक लिहिले. महात्मा फुले यांनी या नाटकाचा 'त्रितीय रत्न' असा उल्लेख केला आहे. प्रा. सीताराम रायकर यांच्याकडे उपलब्ध असलेल्या सर्व हस्तलिखित प्रतीवर 'तृतीय' एवजी 'त्रितीय' असाच उल्लेख आहे.

महात्मा जोतीबा फुले यांचा जीवनपट:

अ.न.	घटना	वर्ष
१	जन्म	१८२५
२	पंतोजीच्या शाळेत मराठी शिक्षण	१८३४-१८३८
३	कावडी येथील झगडे पाटील यांच्या कन्येशी (सावित्रीबाई) विवाह	१८४०
४	मिशनरी शाळेतील माध्यमिक शिक्षण (इंग्रजी)	१८४१-१८४७
५	लहुजीबुवांकडे तालीम आणि क्रांतिकारक विचारांची सुरवात	१८४७
६	टॉमस पेनकृत 'राईटस् ऑफ मॅन' या ग्रंथाचे वाचन आणि मनन	१८४७
७	उच्चवर्णीय लग्नाच्या मिरवणुकीत झालेला अपमान	१८४८
८	शुद्रातिशुद्र यांच्यासाठी मुलींची पहिली शाळा स्थापन	१८४८
९	शुद्रादिकांना शिक्षणदान करण्याचे व्रत घेतल्याने गोभारयवतीमह करावा लागलेला गृहत्याग	१८४९

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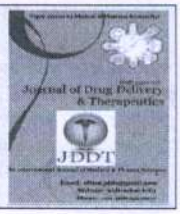

Open Access Research Article

Ethnobotanical and Medicinal plant study in Trimbkeshwar Taluka, District Nashik, (MS), India

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ABSTRACT

The present study on ethnobotanical, traditional medicinal plants were conducted different locality of Trimbkeshwar taluka during 2018. The study was focused on identifying medicinal plants, disease treated, method of preparation, part of the plant used etc. The data was collected using interview and questionnaires by traditional healers. A total 40 medicinal plant species belonging to 30 families have been reported as employed by the rural folk and tribals. These ethnomedicinal plants species need obviously further scientific evaluation to have new sources of drugs. So it must be preserved and propagated.

Keywords: indigenous knowledge, ethnobotany, medicinal plants

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INTRODUCTION

India has one of the oldest, richest and most diverse cultural traditions associated with the use of medicinal plants in the form of traditional system of medicine. Ethnobotany is the study of the interaction between plant and people, with a particular emphasis on traditional tribal cultures. According to the world health organization about 65 – 80 % of the world's population in developing countries depends essentially on plants for their primary healthcare due to poverty and lack of access to modem medicine. Traditional knowledge of medicinal plants and their use by indigenous healers and drug development in the present are not only useful for conservation of cultural tradition and biodiversity but also for community health care and drug development in the local people. The indigenous knowledge on medicinal plants appears when humans stared and learned how to use the traditional knowledge on medicinal plants (Emiru et al, 2011).

A history of medicinal plants is intimately connected with history of botany and environment. The use of various plants and plant part have specific capacity to cure human diseases from remote past medicine men "Vaidus" (Tribal priest) used various plant and animal organs in preparation of crude drugs. India has vast and inexhaustible resource of medicinal plants. Several medicinal plants used for this purpose were collected from forest. Many rural people and different tribes live in forest of Trimbkeshwar taluka. These tribal people use different plants for various purposes like thatching roofs, building their huts and mainly as medicines. They use many plants and different plant part to cure various diseases. They follow various methods to obtain the medicines from the plant.

They live in thatched cluster of huts. Few tribal headman, women or medicine men treat various ailments of human beings and their domestic animals. These tribal are although forest dwellers, do some agriculture, but agriculture alone does not provide full time engagement all the year round and enough money to survive. Therefore they have to depend also on forest resource for their livelihood.

The traditional folk medicines of the world have brought to light some of these rare wonder herbs which make big promise to salvage the mankind from some of the deadly modern human diseases. Such studies may provide new materials to the workers in the field of pharmacology and photochemistry. The results will be encouraging but scientific scrutiny is absolutely necessary before being put into practice.

MATERIAL AND METHODOLOGY

The study area, Trimbkehwar taluka, part of Western Ghats, lies between the north latitudes 19.9322472 N and the east longitudes 73.5306744 E. It covers a total area of around

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Botany

TOLERANCE OF ALIETTE BY RHIZOSPHERE MYCOFLORA OF *CAPSICUM ANNUUM L.*

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ABSTRACT The present exploration was undertaken to study the tolerance of fungicide (Aliette) by the rhizosphere and soil mycoflora of *Capsicum annuum* L. was studied by using Food Poisoning Soil Dilution (FPSD) technique. Isolation of rhizosphere mycoflora was carried out on "Czapek-Dox agar medium" by soil dilution plate count method. By this method each viable fungus was developed into a colony on the plates. Then the slides were prepared and identified. Most of the fungal species tolerated from rhizosphere and soil were: *Aspergillus niger, Aspergillus carbonarius, Aspergillus fumigatus* and *Penicillium funiculosum* tolerated at higher concentration. As the fungicidal concentration increases in the plates, the fungal population decreases.

KEYWORDS : Fungicide, tolerance, rhizosphere, soil, fungi

INTRODUCTION

The work done by Starkey is an excellent and pioneering in the field of rhizosphere study. He was the first to work out rhizosphere microflora in detail and unearthed several microbiological problems regarding rhizosphere. He worked out qualitative and quantitative effects of different plant species increase in the number of microorganisms in rhizosphere with the age of the plant and also the seasonal variation in the number of the rhizosphere microflora. The native home of chilli is considered being Mexico. Chilli was introduced in India by the Portugese in Goa in the middle of the 17th century and since then it had rapidly spread throughout the country. The soil borne fungus, *Phytophthora capsici,* causes *Phytophthora* root rot also called chilli wilt. This fungus is a serious pathogen on peppers worldwide. Seedling disease, commonly called 'Damping off', can be caused by a number of soil borne fungi such as *Rhizoctonia solani, Phytophthora capsici* and *Fusarium* sp. Damping off occurs when seeds or young seedlings are attacked by theses pathogens. Fungicidal compounds marketed in India were tested in vitro for their tolerance by rhizosphere and soil microfungi of chilli with the help of rapid food poisoning, soil dilution technique variability in the tolerance of fungicides with different isolates of these organisms from rhizosphere and soil was observed.

Many fungicide compounds are directly introduced into agricultural land for combating soil borne disease and pests. These chemicals reach the soil and thus influence the microbial balance of soil by Wainwright (1979) and Bollen (1981). Chemical control of these diseases is being widely practiced to achieve higher yields of *Capsicum annuum* L. all over the world. For this reason use of pesticide has become an integral and economically essential part of agriculture. They are most extensively used in countries with high agronomic technology. At present chemical fungicides viz. mancozeb, captan, carbendazim, thiram, copper oxichloride, benlate, ziram etc. are used to manage the disease. Various pathogens like *Gloeosporium amelophagum, Fusarium oxysporum, Colletotichum capsici, Pythium* sp. and *Phytophthora* sp. have been reported Gangawane (1990) to develop resistance against commonly used fungicides.

Tayal (2009) reported that the application of fungicide in agriculture soil decreases the total number of soil fungi. The interesting examples of the resistance to agricultural pesticides have been reviewed by Dekkar (1976) and Georgopoulos (1976 and 1977). Tolerance of fungicides by pathogenic fungi is reported by some workers Anderson (1978), Greaves (1979) and Saler and Gangawane (1981 and 1994).

Aktar et al., (2009) gave a detailed account of effect of contamination of air, soil and non target organism by different pesticides. Das et al., (2005) found markedly increase of the number of fungi in soil treated with insecticide phonate. Tapwal et al., (2003) studied by rhizosphere as a zone of increased microbial activity in the vicinity of plant roots. Increases in microbial community are due to the exudation of plant roots. Quantitative and qualitative rhizosphere mycoflora and their ecological interaction influence the growth and development of seedlings by Maisuria and Patel (2009). Andreu and Pico (2004) was studied the present investigation was carried out to determine the rhizosphere mycoflora of chilli. Amran and Hasan (2003) investigated the effect of fungicides on mycoflora of wheat field soil. The result showed that many fungi such as *Fusarium* sp., *Absidia* sp. and *Alternaria* sp. appeared less in soil before treatment with fungicides than after treatment. While common fungi in the soil declined after treatment with fungicides such as *Penicillium* sp. and *Aspergillus* sp. Lower concentration of benomyl (10 ppm to 100 ppm) gave strong inhibitory action against non rhizosphere fungi. Rhizosphere fungi and rhizoplane fungi compared with mancozeb at 500 ppm and 1000 ppm. Channabasava et al., (2015) studies by fungicide treatments affect the root colonization by *R. fasciculatus* and growth of Proso millet plants. Treatment with Benomyl, followed by Bavisin and Mancozeb, significantly decrease the root colonization, spore number, plant growth and grain yield of mycorrihizal plants compared with mycorrhizal plants without fungicide treatment.

MATERIALS AND METHODS

Seeds of the *Capsicum annuum* L. were sown in the experimental plots using garden soil in the Botanical Garden, K.T.H.M. College Nashik. They were observed for the germination after 15th days. Plants were collected to study the tolerance of fungicides by rhizosphere and soil mycoflora of *Capsicum annuum* L. The samples were properly labeled. Isolation of rhizosphere mycoflora was carried out on "Czapek-Dox agar medium" by "soil dilution plate count method" Subba Rao (2004). By this method each viable fungus was developed into a colony on the plates. Then the slides were prepared and identified.

Food Poisoning Soil Dilution (FPSD) technique:

Tolerance of rhizosphere and soil fungi was studied by modified food poisoning soil dilution (FPSD) technique Nene (1971), Saler and Gangawane (1981) were used for quantitative and qualitative studies of soil. The media employed were equal volume of 2x medium (served as food) and 2x concentration of fungicide (served as poison) along with 1 ml of spore suspension from a dilution flask (served as soil dilution). Thus the medium had the final concentration 100, 200, 500, 1000, 1500 µg/ml concentration of fungicide (aliette). Media with single strength without fungicidal compound served as control. Control concentration was considered as 0 µg/ml. 'R' abbreviation used as rhizosphere mycoflora and 'S' used as soil mycoflora. R/S referred as Rhizosphere effect. Plates were incubated in an inverted position at room temperature until good growth of fungi was observed. The identification of fungal organism was done by referring various monographs, research papers and other literature such as a manual of soil fungi etc.

RESULT AND DISCUSSION

Tolerance of Aliette by Rhizosphere and Soil mycoflora of *Capsicum annuum* L. at 15 day growth period.

Qualitative Results:

A total of 17 fungal species was recorded; out of this 15 species were recorded in rhizosphere and soil on poisoned plates. At control µg/ml, 14 species were recorded in rhizosphere and 15 species were in the soil. 100 µg/ml Aliette was tolerated by 10 species in rhizosphere and soil, 200 µg/ml was tolerated by 10 species in rhizosphere and 8 in soil, 500 µg/ml was tolerated by 8 species in rhizosphere and 6 in soil, 1000 µg/ml was tolerated by 5 species in the rhizosphere and 4 species in soil and 1500 µg/ml was tolerated by 2 species in rhizosphere and 3 species

भारतीय संघराज्याचे बदलते स्वरूप

प्रा. संजय ए. मराठे, राज्यशास्त्र विभाग
मविप्र कला, वाणिज्य व विज्ञान महाविद्यालय नांदगाव ता.नांदगाव (नाशिक)

सारांश स्वातंत्र्यानंतर भारतात चार दशकापर्यंत एकपक्षीय वर्चस्व होते. या काळात सत्तेचे केंद्रीकरण झाले. १९६७ नंतरच्या काळात विकेंद्रीकरणाची मागणी राज्याकडून होऊ लागली. राष्ट्रीय नेते आणि शासनामुळे प्रादेशिक पक्षांच्या संख्येत वाढझाली. १९९१ नंतरच्या उदारीकरण, जागतिकीकरण व आघाड्यांच्या राजकारणामुळे भारतीय संघराज्याच्या गतीशिलतेत बदल झाला आहे. विल्यम रिकर म्हणतात की, संघराज्याची गतिशीलता हि राजकीय पक्ष पद्धतीवर अवलंबून असते. भारतीय संघराज्याचे महत्वाचे वैशिष्ट्ये म्हणजे संघराज्य हे आता बहुस्तरीय झाले आहे.

प्रस्तावना

भारतीय राज्यघटनेत संघराज्य हा शब्द कोठेही आढळत नाही. भारतीय घटनेच्या पहिल्या कलमात 'भारत हा एक राज्याचा संघ असेल' भारताचे राज्य फेडरल स्वरूपाचे असले तरी लहान लहान राज्यांनी एकत्र येऊन करार करून निर्माण झाले नाही. जरी राज्यकारभाराच्या सोयीसाठी देशाचे भाग पाडून घटक राज्य निर्माण केली असली तरी भारत हा अखंड एक, भारताचे लोक एक आणि भारताची अधिसत्तही एकच आहे. अमेरिका, स्वित्झर्लंड या देशाच्या संघराज्याप्रमाणे भारत हे संघराज्य नसले तरी भारतीय घटनेने संघराज्यात्मक पद्धतीचाच स्वीकार केला आहे. भारतीय घटनेने मध्यवर्ती सरकार आणि घटक राज्याची शासन यंत्रणा अशी दुहेरी शासन पद्धती स्वीकारलेली आहे. अधिकार क्षेत्राची विभागणी, लिखित व परीदृढ राज्यघटना आणि सर्वोच्च न्यायालय हि संघराज्याची वैशिष्ट्ये भारतीय शासन पद्धतीत आढळतात. मध्यवर्ती सरकार व घटक राज्यांची सरकारे अशी दोन प्रकारची राज्यकारभार यंत्रणा भारतीय घटनेने स्वीकारली असली तरी देशासाठी एकेरी न्यायदानपद्धती स्वीकारली आहे. भारतीय राज्यघटनेत मध्यवर्ती सरकार आणि घटक राज्य शासन यंत्रणा या दोन्ही बाबी एकत्रित समाविष्ट करण्यात आल्या आहेत. राज्यघटनेच्या एकाच चौकटीत भारतीय शासन यंत्रणेचे संघात्मक व एकात्मक स्वरूप जाणवते. भारतीय घटक राज्यांना फुटून जाण्याचा अधिकार देण्यात आला नाही. मायकेल स्टुअर्ट यांनी असे म्हटले आहे की, "भारत हे एकात्म आणि संघराज्यात्मक पद्धतीचे मिश्रण आहे". प्रो. के. सी. व्हीअर यांनी असे म्हटले आहे की, "भारतीय संघराज्य हे अर्ध संघराज्यात्मक पद्धतीचे आहे." स्वातंत्र्यानंतर वेळोवेळी नेतृत्व, पक्ष पद्धती, आर्थिक घटक, प्रादेशिक राजकारण, स्थानिक पातळीवर नव्याने उदयास आलेला नेतृत्वाचा आकृतिबंध, प्रादेशिक आणि वांशिक चळवळी याचा परिणाम भारतीय संघराज्य पद्धतीवर होत आहे. यातून भारतीय संघराज्य नवीन आकार घेताना दिसत आहे.

उद्दिष्टे

१) भारतीय संघराज्यशासन पद्धतीचा अभ्यास करणे
२) भारतीय संघराज्याच्या बदलत्या स्वरूपाचा अभ्यास करणे

गृहीतके

१) भारतीय शासन पद्धतीतीत एकात्मक व संघात्मक वैशिष्ट्ये आहेत.
२) बदलत्या काळानुसार संघराज्य शासन पद्धतीत बदल होत आहे.

संशोधन पद्धती प्रस्तुत विषयाचा अभ्यास करण्यासाठी द्वितीय तथ्य सामग्रीचा वापर करण्यात आला. यात प्रामुख्याने या विषयाशी संबंधित पुस्तके, संदर्भ ग्रंथ, मासिके व संकेत स्थळांचा आधार घेण्यात आला आहे. विषयाची मांडणी करण्यासाठी वर्णनात्मक व विश्लेषणात्मक पद्धतीचा आधार घेतला आहे.

विषय विश्लेषण संघराज्य म्हणजे अधिकार वाटप करून त्यात केंद्र शासन व घटक राज्य शासन अशा दोन पातळ्या निर्माण केल्या जातात. आधुनिक काळात समान हितसंबंध, समान सामाजिक सांस्कृतिक वारसा, समान उद्दिष्टे आणि प्रशासकीय सोय यासाठी

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लोकसंगीत

(हरियाणवी, अवधी, ब्रज भाषा में)

डॉ. भारती बाळकृष्ण धोंगडे
ज्ला वाणिज्य व विज्ञान महाविद्यालय
नांदगाव

डॉ. उषा पुंडलिक शिरोडे
हिन्दी विभाग प्रमुख
कला वाणिज्य व विज्ञान महाविद्यालय नांदगाव

लोकसाहित्य एक परम्परा निधी है, जिसका निर्माण समाज द्वारा होता है और उसकी सुरक्षा भी समाज का दायित्व है। ज्सी भी प्रदेश ज्े लोकसाहित्य में उस प्रदेश में प्रचलित रीति-रिवाज, रहन-सह्न, ज्ान-पान, लोकविश्वास, लोकसंस्कृती, ऐतिहासिक पृष्ठभुमि, सामाजिक-भाषावैज्ञानिक विशेषता आदि तत्व निहित रहते है।

'लोकसाहित्य' लोक और साहित्य दो। पृथक शब्दों के योग से बना है। साहित्य शब्द तो शिष्ट साहित्य के लिए प्रयुक्त किया जाता है। लोक का अर्थ आमलोगो से लिया जाता है। लोक साहित्य को अंग्रजी में 'फोज्लोर' शब्दसे जाना जाता है। फोक तथा लोर फोक का अर्थ अशिक्षीत एवं असंस्कृत मनुष्य जाति से हैं तथा लोर का अर्थ- जो सिखा जाय अर्थात ज्ञान। 'फोज्लोर' का सम्मिलीत अर्थ असंस्कृत एवं अशिक्षीत मनुष्य जाति का ज्ञान होना चाहिए।

डॉ. सत्येन्द्र ने लोकसाहित्य की गुढ परिभाषा दी है। 'लोज् ' मनुष्य समाज का वह वर्ग है, जो अभिजात्य संस्कार, शास्त्रीयता और पांडित्य की चेतना अथवा अहंकार से शून्य है, जो एक परम्परा के प्रवाह में जिवित रहता है। एसे लोक की अभिव्यक्ति में जो तत्व मिलते वे लोकतत्व कहलाते है।।१।।

मुलरुप से कहा जा सकता है कि लोकसाहित्य वह विधा है जिसमें, लोकसंस्कृती, लोकविश्वास, संस्कार, परम्परागत मानवमुल्यों, नैतिकता, मनोरंजन, ऐतिहासिक तत्वों आदि का समावेश होता है। लोकगीत, लोककथा, लोकनाट्य, लोकराग तथा प्रकीर्ज साहित्य भी इसज्े अन्तर्गत आता है। अर्थात तत्कालीन समाज का प्रतिबिंब लोकसाहित्य में देखा जा सकता है।

लोकसाहित्य किसी प्रदेश की आंतरिक भावना का परिचायक है। यह एक दर्पण के समान है, जिसमें उस प्रदेश की संस्कृति व साहित्य का प्रतिबिंब साकार रुप में धारण करके हमारे सामने चमकता है।

लोकगीत :- जीत भावों की रसात्मक एकात्मानुभूति की अभिव्यक्ति है और लोकगीत प्रकृती के उद्गाव। "लोक गीत में छंद -ही, अलंकार नही, उसमें है केवल रस, जिनका संबंध सीधे हृदय से है। इन गीतों में लोकहृदय का इतिहास व्याप्त है, जिसमें प्रेम का आकर्षण है, श्रध्दा है, तथा ज्रु-ना की कोमलता है। लोकगीतों में मनुष्य के हृदय का शुध्द प्रतिबिंब है। इसमें आदर्श के स्थान पर यथार्थ है और ज्ल्प-ना ज्े स्था-न पर स्वाभाविज् "।।२।।

ज्रामीण भोले एवं सहज होते है अतएव उनके गीत उनकी उसी सहजता, निष्कपटता एवं अकृत्रिमता से ओतप्रोत है। ग्रामीण जीवन मृत्युपर्यंत गीतमय है। प्रत्येक जीवनानुभव को ग्रामवासी अपनी रसानुभूती से गीतमय बना देना चाहता है। बटोही गीत गाकर अपनी थकान मिटाता है। चरवाहा बिजन वन में पशुओं को चराते समय गीत गाकर संपुर्ण वनस्थली को ध्वनिमय कर देता है। गन्ना लगाते समय किसान रात के समय कोल्हु की चरमर में अपना स्वर भरकर रात के सन्नाटे को भुला देता है। बैलगाडी से यात्रा करनेवाला गाडीवान अपने बिरहे की आलाप से प्रकृती को जागृत कर देता है।

भारत की लोकसंस्कृती अनादिकाल से भारतीय जनमानस को गतिशीलता प्रशन करती हुई निरंतर चली आ रही है। हमारी भारतीय संस्कृती विविधताओं से परिपुर्ण है। देश के प्रत्येक स्थान की अपनी संस्कृती है। भारतीय लोकसंगीत का बहुत महत्व है, क्योंकि उसके द्वारा व्यक्ति अपनी संस्कृती को व्यक्त करता है। प्रत्येक स्थान पर लोज् संगीत की उपस्थिती व्याप्त रहती है।

हरियाणवी लोकसंगीत :-

हरियाणवी जनमानस स्वभाव से ही वि-नोद प्रकृती के होते है। हास्य सहज रुप में उनके लोकमुख से प्रस्फुटित होता है। हरियाणवी जनमानस हाजिर जबाबी होती है। कठिन समय पर भी हरियाणा का व्यक्ति हँसी-मजाक करने से नहीं चूकता ।

१.) भ्रुण हत्या एक सामाजिक कलंक है और विज्ञान का दुरुपयोग भी है। इसलिए समाज में लिंगानुपात का असंतुलन निरन्तर बढता जा रहा है जो भावी समाज के लिए भारी संकंट बनेगा- लोज् ज् वि बलवीर शर्माने भ्रूण के द्वारा ठीक ही कह है..

तेरी बेटी अर्ज करे मानुष गर्भ में कत्ल कराइए ना।।

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56.

IMPINGEMENT OF LITERATURE ON FILMS: A CASE STUDY OF DEEPA MEHTA'S ELEMENT TRILOGY

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ABSTRACT:

Cinema is a universal thing. It provides people in different branches of learning. The beginning of cinema in the early 1900s quickly managed to a link between film and literature, Literature and Film are linked to each other but still, they are different in their own methods. The process of adaptation actually amalgamates the interpretation of the spectators and the art of the film itself. Literature provides filmmakers a rich source of materials for movies. For the study, the impingement of Literature on Films is enough to go through the Deepa Mehta's Element Trilogy, because these three films are the perfect example of the relationship between film and literature. Each film has separate connections with literature and society

***Keywords**: Films, Element Trilogy, Cinema, Transnational, diasporic*

"Film's essence lay in its ability,
To mechanically reproduce reality;
Not in its difference from reality. Andre Bazin (French Film Critic)

Literature is the medium of social expression. Through the literature, we can understand the whole scenario of the world. Film, Literature, and Culture are the three mediums of social expression. The film is the youngest of the three mediums; it has deep roots in the other two. Modern Art Movement has started from painting to sculpture then it came to Film, Music, Architecture, and Literature. From all these arts each chose itself different medium and different ways to produce meaning. The literature mostly depends on words, but the film works with its own medium specified with the camera eye, using language, music, perspective, space composition, sequence, and the human body.

> *"Film, similarly to literature, is capable of a coherent and reasoned treatment of a subject, and a film adaptation of a literary masterpiece may be a work of art on a par with its "prototype." The fact that both use different techniques and codes to generate meanings does not justify the treatment of film texts as inferior to literary texts."*

(ZIEJA,)

For a long time, there has been an interrelationship and mutual influence between literature and other forms of artistic forms. This has resulted in painting and music based on works of fiction, drama, and poetry, as well as literary works, vie with pictorial styles and musical structures. Literature and Film are linked to each other but still, they are different in their own

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PORTRAYAL OF DOMEST : VIOLENCE IN THE FILM 'MAHERCHISADI'

Dr. Kesare Parmeshwar
Mr. Ajay Lawange

Abstract

Films and serials on the TV and the silver screen has the capacity to reach a large audience and give them entertainment, knowledge, and information. It becomes easy to reach large number of society members who might be uneducated and unaware of social trends and reforms. Films are adaption of literature, of history, of society, or it may be of ideas in the minds of film makers. As it is said literature is the mirror of the society, it is also true that films also represent society. In Maharashtra

domestic violence is ocial problem from historical times as in history reformers and socialist worked for women empowerment in terms of girl education, abolition of Sati Pratha, second marriage for woman, etc. these all problems and social reforms are represented in Marathi films, and alike this MaherchiSadi speaks of domestic violence and plight of a woman.

Keywords: Film, Domestic Violence, Woman Abuse, Social Voilence, Marathi Films, MaherchiSadi.

Domestic violence is a crime which stands as an obstacle in the progress of the society. Domestic violence cost the development in term of social health, law enforcement, economy, public health, and peace of the nation. The term DomesticViolence is related with gender discrimination, the weaker female gender always strands as the victim in domestic violence. Domestic violence is not only referring to the physical torture but it points towards the economic, social, and political oppression of the victim.

It is true that mainly the victim of the domestic violence is female but in rare cases male also becomes the victim of domestic violence. There are many instances in which males are victims. We find many organizations in the society that work to help the victims of domestic violence. The organization Stand Up Against Violence is working in Maharashtra to help victims of domestic violence.

The main cause of domestic violence is rooted in the psyche of Indian society. Nearly in all the religions in India women find subordinate place in family. Women are only meant to deal with the household and serve for the leader of the society who is always the male. When failed to fulfill the demands and duties of households, women becomes victims of domestic violence.

Many traditions in Indian society stand as the main cause for domestic violence. The marriage system in which the girl has to leave her house and stay with the husband in his house makes

A REVIEW ON E- CONTENT DEVELOPMENT AND E-LEARNING

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ABSTRACT

Information technology is a key driver of research, innovation, growth and society. The evolution of internet and World Wide Web has accelerated human life dramatically. An E- education, E-learning and E- content developments are the ICT based drives being revolutionizing the education system noticeably. With the traditional education system, students are being feed with technology oriented audio-visual and advanced methods of teaching. This is supposed to be the innovative technological era of education. E- Content development is a new initiative to enrich knowledge of people in the society irrespective to caste, religion, region and gender, ultimately for the purpose of development of information rich society. The present article focuses on the assessment of effectiveness of E-content development for the students and society.

Key Words: E-content, E-learning, E-education, Development, Information Technology

INTRODUCTION

In the present education system, effective dissemination of information by developing creative content by the incorporation of innovative ideas and technology plays very important role. Web based learning, computer assisted learning, mobile based learning, virtual classroom and digital collaboration serves as E- content which is developed by assemblage of text, audio, video, images, animation etc. (Mishra et.al, 2017). Now a day's teaching and learning is moving towards multimedia based content development and utilization, so it is necessary to build an effective, useful, useable, and satisfying electronic contents. The cognitive approach is developed in which the multimedia learning interprets that learners have dual information transformation channels, visual and verbal. Both visual and verbal channel influence learners attention and should be used harmony to maximize learning process (Hamdi and Hamtini, 2016). Information technology is applicable in every event of life. The e-content development and e-learning should not replace the traditional teaching and learning but it is considered supplementary (Manikandan and Dhanalakshmi, 2017).

The e-content is the fundamental part of e-learning which is computer supported content created in an electronic environment. So, e-content is storable and workable education sources created with digital technology and applicable for both formal and personal education. E- Content could made individual learning easier and shortens the teaching and learning process. It also supports teachers by enriching their instructional material. Hence educational institutions are taking efforts in designing e-content. Electronic research reports,

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१५. भारतीय अर्थव्यवस्थेत कृषी क्षेत्राचे महत्त्व

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अर्थशास्त्र विभाग प्रमुख, कला वाणिज्य व विज्ञान महाविद्यालय, नांदगाव, ता. नांदगाव (नाशिक).

प्रस्तावना

भारत हा कृषीप्रधान देश आहे. भारतीय अर्थव्यवस्थेत शेतीला अनन्यसाधारण महत्त्व आहे. सन 1951 पासून ते आजतागायत शेती क्षेत्रात आमुलाग्र स्वरुपाचे बदल झाल्याचे दिसून येतात. भारतीय अर्थव्यवस्था आणि कृषीक्षेत्र यांचा अतिशय निकटचा संबंध आहे. शेती क्षेत्रातील बदलांचा प्रभाव अर्थव्यवस्थेवर दिसून येत असतो म्हणूनच सार्वजनिक सत्तेला अनेक निर्णय घेत असतांना शेती क्षेत्र केंद्रभूत मानावे लागत असते. आजही देशाच्या एकूण लोकसंख्येपैकी जवळपास 50 टक्के लोकसंख्या ही शेती क्षेत्रावर अवलंबून आहे, त्यांचा प्रमुख व्यवसाय शेती हा आहे. देशाच्या आर्थिक विकासात शेती क्षेत्राला महत्त्वाचे स्थान आहे. शेती क्षेत्राचे अर्थव्यवस्थेच्या विकासात महत्त्वपूर्ण योगदान आहे. पुढील काही मुद्यांवरुन देशातील अर्थव्यवस्थेत शेतीला किती महत्त्व आहे. हे स्पष्ट होते.

अधिकाधिक रोजगार पुरविणारे क्षेत्र

सन 1951 मध्ये भारताचील लोकसंख्या 36 कोटी होती. ती 2001 मध्ये 102 कोटी पर्यंत वाढली सध्या ती जवळपास 140 कोटी पर्यंत पोहचली आहे. लोकसंख्या ज्या दराने भारतात वाढली आहे. त्या दराने रोजगार निर्मिती भारतात झाल्याचे दिसून येत नाही. उद्योग व सेवा क्षेत्रात रोजगाराची मर्यादा निर्माण होत असते. अशा परिस्थितीत वाढीव कर्त्या लोकसंख्येला रोजगार देण्याची क्षमता फक्त शेती क्षेत्रात असल्याने त्याचे महत्त्व वाढते. ग्रामीण भागातील मोठ्या प्रमाणात लोक शेती क्षेत्रात कार्यरत आहेत. अशा लोकांना उत्पन्न मिळवून देणारे प्रमुख क्षेत्र हे शेतीच आहे. विकसित देशांमध्ये शेती क्षेत्रातून खूपच कमी प्रमाणात रोजगार निर्माण होतो म्हणूनच देशातील वाढत्या लोकसंख्येला सामावून घेण्याची क्षमता शेती क्षेत्रात असल्याने भारतीय अर्थव्यवस्थेत शेती क्षेत्रास महत्त्वाचे स्थान प्राप्त झाले आहे.

अन्नधान्याचा पुरवठा

हरितक्रांतीनंतर भारत अन्नधान्याच्या बाबतीत स्वयंपूर्ण झाल्याचे दिसून येते. सध्या भारताची 140 कोटी लोकसंख्या असून त्यांना पुरेल एवढे मुबलक प्रमाणात अन्नधान्याचा पुरवठा शेती क्षेत्राकडून केला जात आहे. भारतातील कृषी क्षेत्रात प्रामुख्याने गहू,तांदुळ, ज्वारी, बाजरी, कडधान्य, तेलबिया इ. अन्नधान्याचे उत्पादन घेतले जाते. भारतातील एवढ्या मोठ्या लोकसंख्येला अन्नधान्याचा पुरवठा शेती क्षेत्राकडून होत असल्याने भारतीय अर्थव्यवस्थेत शेती क्षेत्रास महत्त्वपुर्ण स्थान प्राप्त झाल्याचे दिसून येते.

आर्थिक विकासाच्या दृष्टीने शेती क्षेत्र महत्त्वाचे

देशाच्या आर्थिक विकासाच्या दृष्टीने कृषी क्षेत्राचे महत्त्व आहे. विल्सन, बार्कर या कृषी अर्थतज्ञांच्या मते, कृषी हे अर्थव्यवस्थेतील पायाभूत क्षेत्र आहे. कारण जागतिक लोकसंख्येचा विचार केल्यास बहुसंख्य लोक हे

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Sol-Gel Fabricated Transition Metal Cr^{3+}, Co^{2+} Doped Lanthanum Ferric Oxide (LFO-$LaFeO_3$) Thin Film Sensors for the Detection of Toxic, Flammable Gases: A Comparative Study

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Abstract

In this investigation we are reporting the rapid preparation of Perovskite $LaFeO_3$ thin films prepared by sol-gel synthesis followed by spin coating method. The structural properties of the spin coated $LaFeO_3$ thin films measured by X-ray Diffractometer which confirms the formation of monophasic, orthorhombic, Perovskite $LaFeO_3$ material. The morphological features of the films were explore by the ease of scanning electron microscopy, where the crystalline $LaFeO_3$ nanoparticles were observed. Energy dispersive spectroscopy was utilized for the determination of elemental composition. The electrical properties were carried out to confirm the typical semiconducting behaviour of $LaFeO_3$ p- type semiconductor. The thin films were subjected for gas sensing study, the material was found to be very efficient gas sensors for LPG, petrol vapour, CO_2, methanol, ethanol, acetone gases. The main object was to discuss comparative study, means, what changes in parameters may be observed due to doping elements. Here undoped LFO sensor showed

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POSITIVE AND NEGETIVE ROLE OF BIOTECHNOLOGY IN HUMAN LIFE: A REVIEW

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ABSTRACT:

Biotechnology contributed with a wide spectra in human life. The fields like agriculture, medicine, diagnosis, textile, food, environment and many more are highly captivated by various deliberating inventions of biotechnology.Advancement in it could led to the development of cellular engineering, biomaterials, biochips, stem cells, gene engineering and so proceeding rapidly.Due its interdisciplinary nature, it has progressed in all possible branches and have spread wings at social, political, economical, environmental and global levels.In a directive to meet needs of fast growing population, biotechnologists are oftenly engaged in the new invention in various grounds of biology.In some extent, we could achive our goal but some unidirectional and unpredicted experiments of biotechnology triggered some antagonistic and unexpected effects too. Evolution of novel microorganisms leading to new disease, side effects of GM foods, troubling ecological balance, loss of natural gene combinations, developed resistance by pests etc are some ill effects of biotechnology. In the present article, an attempt and approach is made to discuss some positive and negetive implications of biotechnological inventions so, that common people can get awared of everything they using for their livelihood. It is expected that, in the near future we should control some harmful trials and accelerate some fruitful investigations by taking care of welfare of human being and surroung environment.

Key words: - *Positive, Negetive, Biotechnology, Environment, GM Foods, Bioplastic*

INTRODUCTION:

Biotechnology, an interdisciplinary branch of biology could successfully make a way in different modern inventions. It involves the utilization of living things like cells and bacteria for production of various products of plant and animal origin for the wlefare of human being. It has the combinations of not only biology but mathematics, physics, chemistry, engineering and so many other disciplines. Now a days, biotechnology and its applications ranges from agriculture, medicine, plant physiology, antomy, seed technology, textile, food, nutrition, pharmaceuticals etc. Modern biotechnology is more progressive and advanced thant the old was. Different inventions took place till today could combat rare diseases, controlled environmental pollution, meet hunger, and safer and cleaner industrial manufacturing processes. The fields like genetic engineering, tissue culture, cloning, disease diagnosis, gene therapy, monoclonal antibodies and so on are the wonderful inventions revolutionised the world.Biotechnology has some drawbacks too like uncertainty, costs of the products, and some etical issues regarding clonning, xenotransplantation, stem cell research etc. In the present article, author has made an attempt to review some positive and negetive implications of biotechnology.

POSITIVE ROLE OF BIOTECHNOLOGY

Expansion of world population and fulfillment of all food related needs of human being is the main need of GM foods. Decrease in fertile land due to many manmade calamities like, urbanization, industrilization is main reason of decrease in food production which can be recovered by the use of high yielding genetically modified foods. Conventional

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Computational Insights on Molecular Structure, Electronic Properties, and Chemical Reactivity of (*E*)-3-(4-Chlorophenyl)-1-(2-Hydroxyphenyl)Prop-2-en-1-One

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Abstract

In the current examination, (*E*)-3-(4-chlorophenyl)-1-(2-hydroxyphenyl) prop-2-en-1-one has been studied to investigate geometrical entities, electronic properties, and chemical reactivity viewpoints. To inspect structural, spectroscopic, and chemical reactivity aspects, density functional theory method (DFT) at B3LYP/6-311G(d,p) basis set has been employed. The (*E*)-3-(4-chlorophenyl)-1-(2-hydroxyphenyl)prop-2-en-1-one has been synthesized and characterized by FT-IR, ^{1}HNMR, and ^{13}C NMR spectral techniques. The detailed investigation of bond lengths and bond angles is discussed to comprehend the geometrical framework. To explore its chemical behaviour, Mulliken atomic charges, molecular electrostatic potential surface, and electronic parameters are introduced. The imperative exploration of the electronic properties, such as HOMO and LUMO energies, was studied by the time-dependent DFT (TD-DFT) method. The dipole moment of the title molecule is 2.57 Debye with C1 point group symmetry. The most electropositive carbon and hydrogen atoms in the title molecule are C14 and H27 respectively. Amongst aromatic C=C, the C16-C18 is the longest, and C17-C19 is the shortest bond. The molecular electrostatic potential plot predicts the positive electrostatic potential is around hydrogen atoms. The vibrational assignments were made by comparing the experimental FT-IR absorption peaks with the scaled frequencies obtained using computational work. Besides, some significant thermochemical information is obtained using the same basis set using frequencies.

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Molecular Electrostatic Potential.

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A REVIEW ON DISTRIBUTION AND USES OF PLANT AMPHIBIANS: BRYOPHYTES

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ABSTRACT

Bryophytes composed of three main divisions of non-vascular land plants, liverworts, hornworts and mosses consists more than 23,000 plant species. They preferably grow on moist habitats and are smaller in size. They require abundant water and soil for their successful growth hence referred as Plant amphibians. They found widely distributed in hilly regions and plains depending upon the favorable atmospheric conditions. Most of the bryophytes are autotrophic but some of them show epiphytic, epiphyllous, saprophytic nature. Bryophytes show a morphological and reproductive diversity and do not produce flower or seeds. Instead they produce gamma, tiny buds, disc, etc for their multiplication. Bryophytes are secondary colonizers after lichens due to their ectohydric nature and can remain survive at acute adverse conditions. Bryophytes can be multiplied through their minute but resistant spore. These are medicinally, ecologically, ethnobotanically and economically important plant group widely utilized worldwide for different purposes. An account of their distribution, Phytochemistry, Medicinal, ecological, ethnobotanical and economic prospects is attempted here.

KEY WORD- Bryophytes, Plant Amphibians, Distribution, Ethnobotanical, Economic Importance

INTRODUCTION

Bryophytes are the higher cryptogamic primitive plants found distributed throughout the world. Due to their diversity and cosmopolitan nature, they are considered as the second largest plants after the dominant flowering plants. They can grow on a wide range of substrata including rotten wood, bark of higher plants, soil, roofs, mud walls, leaves of green plants, rocks and stones. They are considered as secondary colonizers on barren rocks after lichens. They are distinct group of plants morphologically and anatomically. Although, they do not develop true roots, stem and leaves, they have such structures to meet needs like anchorage, water absorption,

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A Comprehensive Review On *Cadaba fruticosa* (L.) Druce

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Abstract

Cadaba fruticosa commonly called as 'Kalitaka" or 'Indian Cadaba' belongs to family Capparidaceaeis a frequent plant found in deciduous forests of Maharashtra and in the tropical region of Indian sub-continent. The different medicinal uses of the plant are appreciated by Siddha. It is noted that the leaves and roots of the plant are used to cure some urinary complaints. Also it is recommended on, infestation, swelling, Eczema, constipation, gonorrhea and to cure such an other ailments. The World Health Organization (WHO) has also declared the importance of such medicinal plants for public health care in developing nations. It is evident that, plant shows, anti-diabetic, anti-pyretic, anti-oxidant, antimicrobial, anti-inflammatory, cyto-toxic and so many important activities which will be applicable for the invention of novel drugs from the plant.

Morphology of the Plant :

Unarmed scandent shrubs. Leaves 0.9- 4.0 x 0.4- 1.5 cm, elliptic-oblong, apex obtuse, mucronate, base rounded, margins entire. Flowers dirty white in one sided racemes with few flowers, terminal; petals spathulate. Gynophore 2.0-2.5 cm long. Fruits 2.5-3.0 x 0.5cm, cylindric, dehiscent, Seeds many.

Capparaceae is a middle sized family with 45 genera and nearly 600 species which are distributed throughout the world, mostly in tropical and subtropical region. The capparidaceous plants are usually herbs, erect or scandent, shrubs and rarely trees. The genera cadaba is represented by 30 species. *Cadaba fruticosa is* an unarmed shrubs or trees with older, smooth, purplish, younger, pubescent, yellowish brown Stems. The Leaves are entire, simple, silvery gray and with simple scales. They are mucronate dull green, reticulately veined; base rounded having 12-35 by 8-12 mm oblong or elliptic-oblong and rarely ovate in size. The petioles are 2.5-4 mm long. The flowers are dirty white or whitishgreen to yellow, develop at the tips of the branches (terminal) on apical racemes, 15 mm across and in few flowered, terminal at one sided. The upper flowers contain corymbose racemes (Fig. 1).

The flowers are with four petals which

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VARIATION OF FUNGAL POPULATION OF RHIZOSPHERE AND SOIL MYCOFLORA AT DIFFERENT GROWTH PERIOD OF *CAPSICUM ANNUUM* LINN.

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Abstract

The various soil born fungal disease on *Capsicum annumm* plants which cause loss of chilli production. Present examination variation of soil fungi isolated from rhizosphere and soil mycoflora of *Capsicum annuum* during the month January to April. Different soil born fungal species and variable soil born fungal population was recorded in rhizosphere and soil mycoflora at different 15, 30, 45, 60, 75, 90 days growth period. In 45, 60 and 75 days the maximum number of fungal populations was recorded than another. *Cladosporium herbarum* was reported only 45 and 60 days growth period . The fungal species *Alternaria alternata* was reported 15, 30, 45, 60 and 90 days. *Aspergillus carbonarius, Aspergillus niger, Aspergillus petrakii, Fusarium moniliforme, Fusarium oxysporum, Penicillium funiculosum* and *Trichoderma viride* fungal species recorded at all different growth period.

Key word-Variation, Soil fungi, *Capsicum annuum*, rhizosphere

Introduction

The major consumers of chilli in the world are India, China, Mexico, Thailand, and United State of America, United Kingdom, Germany and Sweden. The major chilli exporting countries with their percentage share in world total exports are India (25%), China (24%), Spain (17%), Mexico (8%), Pakistan (7.2%), Morocco (7%), and Turkey (4.5%). The world trade in chilli accounts for 16 % of the total spice trade in the world, occupying the second position after black pepper. The major chilli importing countries are the United Arab Emirates, European Union, Sri Lanka, Malaysia, Japan and Korea. Number and types of fungal species change with the season, geographical location and the presence of local spore sources and different growth period of plant. Aarti and Ranjana 2013 by investigation mycoflora recorded were not much differing from previously reported soil fungi in different habitat. In Warcup (1955) reported a simple method for isolation of hyphae from soil. Shilpkar et al., (2010) investigated the dominance of different types of microbial communities at different monsoon seasons in rhizospheric soils of *Aegle marmelos* tree.

Gomathiet al. (2011) studies the monthly variation of the fungal population in chilli field of four different Taluka Thiruvarur, Nannilam, Kudavasal and Valangaiman of Thiruvarur (DT). Bhagwat and Saler (2016), studied by the status of diversity taxonomy of Soil fungi from Nashik Tehsil. The importance of mycological studies of different habitat has been emphasized by Rane and Gandhe (2006), Ramarao (1970) etc. Present study the different fungal species and variable fungal population was recorded in rhizosphere and soil mycoflora at different growth period of *capsicum annuum* L.

Methodology

Seeds were sown in earthen pots using garden soil. They were observed for the germination after 15th days. Plants were collected to study variation of fungal population of rhizosphere (R) and soil (S) mycoflora. R/S referred as Rhizosphere effect. The soil samples were collected at different (15, 30, 45, 60, 75, 90 days) growth period of *Capsicum annuum* L. plants. The samples were taken in polythnene bags and brought to the laboratory within 12 hours. The soil samples were properly labeled. The pH of the soil samples was determined. Soil dilution and pour plate method were used for isolation of fungal pathogens. In this method rhizosphere soil sample were transferred to sterilized distilled water kept in 250 ml. conical flasks to make spore suspension. About 10 ml. of prepared Czapek - Dox agar medium at about 35°C to 45°C were poured in the petridishes. One ml.

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Anthracnose Disease of *Capsicum annuum* L. and Its Bio Control Management: A Review

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Abstract *Capsicum annuum* L. is an important tropical and subtropical vegetable and spice crop due to its high consumption, nutritional and cash value to farmers and consumers. It has a specific nutritional value due to presence of biochemical compounds such as capsteam; a volatile fatty oil, capsaicinoids, carotenoids, potassium, folic acid, protein, fiber, mineral elements and vitamins etc. Despite serious threats have been posed by many fungal pathogens to the chili crop worldwide; maximum losses occur in capsicum are due to the Anthracnose disease caused by fungal pathogen *Colletotrichum* sp. The biocontrol management is playing crucial role and promoted widely in control of Anthracnose disease, mainly because of its ability to control variety of fungal diseases and also enhancing the crop production in an environment friendly manner. This review article attempts to highlight an occurrence of Anthracnose disease on an economically important *Capsicum annuum* L. (chilli) along with its biocontrol management strategies.

Keywords: *anthracnose, bio control, Capsicum annuum L.*

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1. Introduction

Chilli (*Capsicum annuum* L.) is one of the most important constituents of the cuisines of tropical and subtropical countries and the fourth major crop cultivated globally. Around 400 different varieties of chilies are cultivated throughout the globe. [1]. Known for over 9500 years, chilli is the native of southern America and was first cultivated in Peru at around 7500 BC. [2]. Chilli is believed to be introduced in India during 17th century by the Portuguese. It was originated in the American tropics and has been propagated throughout the world including the tropics, subtropics, and also temperate regions [3]. The fruit of *Capsicum* has a variety of names, such as 'chilli', 'chilli pepper' or 'pepper' depending on place (i.e., differences between the English-speaking countries) and type of fruits.

Capsicum annuum L. (Chilli) is one of the most important vegetable and spice crop belonging to family Solanaceae, mostly cultivated for its green and ripe red fruit that has multiple uses such as an indispensable condiment, digestive stimulant as well as flavoring and coloring agent in sauces, chutneys, pickles and other forms of food. In India alone, it is cultivated over an area of 792.1 thousand hectares with an annual production of 1223.4 thousand tones [4].

Although the crop production has found to be declined in recent years; mainly due to the biotic factors, attributed to diseases such as fruit rot, leaf spot, wilt, damping off, etc. the crop is mainly susceptible and attacked by several fungal diseases; the most devastating fungal disease that lowers the annual yield considerably; is anthracnose disease caused by *Colletotrichum* spp. Anthracnose disease usually develops under conditions of high humidity when rainfall occurs after the fruits have started to ripen. The disease is more likely to develop on mature fruits, although it can occur on immature fruits as well [5]. The Anthracnose disease is being managed by chemical control agents; environmental concern calls for the usage of ecofriendly methods. Moreover; Deep insight into plant pathogen interactions is required in order to understand pathosystem of *Colletotrichum.* Also, the molecular approaches for the development of resistant varieties may provide long lasting resistance. Major reports on anthracnose, plant pathogen interactions are still needed. [6]. since no resistant cultivars of chilli have been developed and commercialized, it is very important to develop biological management strategies.

2. Medicinal and Nutritional Importance

Numerous varieties of chilli are grown for vegetables, spices, condiments, sauces, and pickles occupying an indispensable position in Indian diet. However; genus *Capsicum* is described with about 27 species; of which 5 are domesticated and are cultivated in different parts of

Allelopathic effects of *Celosia argentea* L. on enzyme activity of peroxidase and catalase in germinating seeds of *Lens culinaris* Medic

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ABSTRACT

Celosia argentea L. is dominant alien weed reported from crop field of Islampur in Walwa taluka of Sangli district of Maharashtra, India. It has been scrutinized for its allelopathic potentiality of *C. argentea* L. against enzyme activity of peroxidase and catalase in germinating seeds of Lentil (*Lens culinaris* Medic). The laboratory experiments were conducted to assess enzymatic activity of catalase and peroxidase during seed germination of lentil after treating with different concentrations (5, 20, 40, 60 and 80%) of aqueous leachates of inflorescence (flower), leaves androot of *C. argentea* separately. It was recorded that the activity of peroxidase was decreased after treatment of leachate of inflorescence, leaf and root. The higher concentrations of inflorescence and root leachates (60 and 80%) were act detrimentally on peroxidase activity. The activity of catalase was enhanced by two to three folds after leachates treatment as compared to control in lentil. The pronounced increased in catalase activity in germinating seeds of lentil was seen after inflorescence leachates of *C. argentea*. It has been also recorded that the higher concentrations treatment of leachates of all parts of *C. argentea* was responsible for enhanced activity of catalase. The activity of catalase elevated while peroxidase declined after inflorescence, leaf and root leachates treatment in lentil. The present study indicated that the allelochemicals are present in weed, *C. argentea*. It needs further screening of allelochemicals and their characterization for detailed study.

KEY WORDS: Allelochemicals, *Celosia argentea* L., Lentil (*Lens culinaris*), Peroxidase and Catalase etc.

POSITIVE IMPACTS OF COVID-19 PANDEMIC ON NATURAL WATER BODIES

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Abstract: *An infectious disease, COVID-19 overwhelmed the world as a global pandemic. All countries worldwide adopted some sort of control measures to save their people from this evil. Lockdown proved to be the most effective tool against the spread of the disease as it emphasizes on physical and social distancing. Lockdown not only controlled the spread of disease, but some positive environmental dynamic changes are also observed during this period. Those changes have not been ever seen in the world before and probably not possible to happen in near future. A remarkable reduction in all types of pollutions including air, water, land and noise was recorded during this lockdown. It is estimated that, about 30 % reductions in pollution is recorded in the developed countries like, USA, Italy, Spain, France etc. in the months of lockdown. In this article, an attempt is made to review impacts of lockdown on the water bodies throughout the world.*

Key Words- *COVID-19, Pandemic, Lockdown, Water bodies, Pollution*

Introduction : Coronavirus, a novel infectious disease originated from Wuhan of china in December 2019, which is later named as COVID-19 (Muhammad et. al, 2020). It has trapped whole world in its deadlier net. As it is emerged as a new disease World Health Organization confirmed it as a infectious disease which transmits man to man by respiratory droplets (WHO, 2020). The disease started from the Wuhan gradually spread all over the country, China within a small span of time. Ultimately the disease spread all over the world through the international travelers. Many countries took all necessary cares to save their population form the pandemic but many of the failed to do so. Coronavirus spread very fast within a period of less than six months all over the world. Many developed countries including USA highly impacted by the disease and thousands of people died due to infection of the virus.

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The Binary Oxide NiO-CuO Nanocomposite Based Thick Film Sensor for the Acute Detection of Hydrogen Sulphide Gas Vapours

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Abstract

The present research deals with the synthesis of copper oxide and nickel oxide nanoparticles. The nano powder of both NiO-CuO was utilized to fabricate the thick films. Thick films fabricated by screen printing method on glass substrate. The ex-situ doping method was followed for mixing the concentration of nickel oxide in copper oxide lattice. Calculated stoichiometric amount of NiO was loaded during thick film synthesis of CuO. The structure morphology of prepared CuO-NiO nanocomposite thick films was confirmed from x-ray diffraction technique, which approves cubic and crystalline CuO-NiO binary nanocomposite. The surface characteristics of the prepared films investigated by scanning electron microscopy that shows homogeneous, porous CuO-NiO nanoparticles with varying dimensions. The prepared thick films of CuO-NiO nanoparticles were analysed for electrical parameter, that assured the prepared material has a semiconducting nature. Furtner, these thick films promoted for gas sensing interpretation of H_2S gas at various temperature and varied gas concentration. Here exclusive reports for hydrogen sulphide gas are reported. The binary CuO-NiO was thoroughly investigated for hydrogen sulphide gas concentration from 50 ppm to 500 ppm at the different temperature. The binary oxide sensor is found to be very sensitive at room temperature and maximum sensitivity response was 75.01 % for H_2S gas. Furthermore the response and recovery times are also reported for binary sensor in the present research. The sensor reproducibility cycle was performed for binary oxide sensor at hydrogen sulphide gas (H_2S).

Article History

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NiO-CuO Thick Film Sensor,
H_2S,
XRD,
SEM,
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Screen Print Fabricated In^{3+} Decorated Perovskite Lanthanum Chromium Oxide ($LaCrO_3$) Thick Film Sensors for Selective Detection of Volatile Petrol Vapors

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Abstract

The present work deals with the fabrication of undoped lanthanum chromium oxide and indium doped lanthanum chromium oxide material by cost effective sol–gel method. The four sensors were fabricated by screen printing technique. The indium ion concentration was varied for $LaCrO_3$ material from 0.1 M% to 0.7 M% to access the comparative gas sensing results. All the prepared materials were characterized by XRD, SEM, EDAX, TEM and IR to confirm their structural and chemical composition. The prepared sensors viz. 0.1 M% In^{3+} doped $LaCrO_3$, 0.3 M% In^{3+} doped $LaCrO_3$, 0.5 M% In^{3+} doped $LaCrO_3$ and 0.7 M% In^{3+} doped $LaCrO_3$ were investigated for gas sensing mechanism for selected gases such as petrol vapours, ethanol, ammonia, NO_2, H2S and CO_2 gases. The optimum response was recorded for tested gases for all the prepared sensors. The 0.3 M% In^{3+} doped $LaCrO_3$ found to be exceptional for petrol vapour and highest response was recorded for petrol vapors for 0.3 M% In^{3+} doped $LaCrO_3$ thick film sensor. All the indium doped are found to be good sensors for petrol vapours and moderate for other tested gases. The prime parameters for the sensors such as selectivity, response and recovery and reproducibility were recorded for the prepared sensor. The response and recovery was very rapid for 0.3 M% In^{3+} doped $LaCrO_3$ sensor. The gas sensing mechanism for petrol vapours has been established for 0.3 M% In^{3+} doped $LaCrO_3$ sensor via hole accumulation layer mechanism.

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Fabrication of thin film sensors by spin coating using sol-gel $LaCrO_3$ Perovskite material modified with transition metals for sensing environmental pollutants, greenhouse gases and relative humidity

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Greenhouse gas sensor
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ABSTRACT

In this study, we are reporting the fabrications of undoped $LaCrO_3$ and Ni^{2+}, Fe^{3+}, Co^{2+} modified $LaCrO_3$ thin films by spin coating method using the sol-gels prepared for these thin film samples. The structural properties of the spin coated $LaCrO_3$ thin films measured by X-ray diffractometer (XRD), which confirms the formation of orthorhombic $LaCrO_3$ nanoparticles. The morphological properties of the prepared films were investigated by the ease of scanning electron microscopy (SEM), and high-resolution transmission electron microscopy (HR-TEM) where the orthorhombic and crystalline $LaCrO_3$ nanoparticles were observed. Energy dispersive x-ray analysis (EDAX) was utilized for the determination of elemental composition. The prepared material was found be in perfect elemental composition. The surface area and BJH pore distribution was observed by Brunauer-Emmett-Teller (BET) analysis. The Ni^{2+}, Fe^{3+}, Co^{2+} modified $LaCrO_3$ thin film found with high surface area of 86.32 m^2/g. Optical properties of both prepared materials investigated by ultraviolet differential reflectance spectroscopy (UV-DRS) to compare band gap energy of prepared sensors. It is observed that due to modification of transition metals, band gap energy of modified $LaCrO_3$ sensor is found to be declined. The electrical properties were carried out to confirm semiconducting behaviour of $LaCrO_3$ semiconductor. The thin films were subjected for gas sensing study of CO, CO_2, NO_2, LPG, toluene vapours and petrol vapours. The modified $LaCrO_3$ sensor found to be highly sensitive for CO_2, CO, and NO_2 gases with response 82.14 (300 °C), 74.52 (200 °C) and 65.18% (150 °C) respectively. The relative humidity from 10 to 90% at 20 Hz found to be efficient for modified $LaCrO_3$ sensor. In summary it can stated that transition metal doping successful to tune the band gap energy, porosity and surface area of modified $LaCrO_3$ sensor. Due to this the sensor properties such as% response,% selectivity, response recovery, reusability and humidity sensing performance found to enhance for modified $LaCrO_3$ sensor.

1. Introduction

The nanoparticles are very efficient materials which are extensively utilized by large number of researchers and scientist for their inherent applications. The solid materials are classified into various categories. One of the various classes of materials is Perovskite oxide materials where two metals are in identical oxidation like +III or two metals

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Transition Metals Ni^{2+}, Fe^{3+} Incorporated Modified ZnO Thick Film Sensors to Monitor the Environmental and Industrial Pollutant Gases

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ABSTRACT

Zinc oxide is known as multifaceted material due to its special physical and chemical properties. Present research deals with the fabrication of undoped ZnO, 1.5% Fe^{3+} doped ZnO, and 1.5% Ni^{2+} doped ZnO nanoparticles by low-cost co-precipitation method. These prepared materials were utilized to prepare thick film sensors by employing a screen printing technique. The structural confirmations of these materials were performed by various nano-characterization techniques. The structural properties were investigated by XRD to confirm the nanoscale ZnO as well as the average crystal dimensions. The surface morphological properties of undoped and modified ZnO were analyzed by SEM and TEM methods. The average volume pores over prepared materials and surface area were concluded from the N^2 adsorption-desorption experiment (BET analysis). The Fe^{3+} doped ZnO has the highest surface area among all the prepared sensors i.e. 23.55 m^2/g. The Fe^{3+} doped ZnO and Ni^{2+} ZnO nanomaterials were observed to show declined band gaps in comparison to the undoped ZnO material. All the prepared sensors were employed for the gas sensing study of gases like NH_3, LPG, formaldehyde vapors, toluene vapors, CO, CO_2, and NO_2. The CO_2 and NH_3 vapors found to be very sensitive towards Fe^{3+} doped ZnO with 76.62% and 76.58% sensitivity respectively. The Ni^{2+} doped ZnO sensor sensitivity for CO_2 and NH_3 was recorded as 71.20% and 70.23% respectively. The LPG, CH_2O, and toluene vapors' sensitivity was also studied for the modified ZnO sensor. Besides, modified ZnO utilized as a relative humidity sensor with an RH variation of 10-90%. The impedance versus humidity curves recorded for all sensors. The Fe^{3+} doped ZnO nanomaterial at 10 Hz was found to be an effective humidity sensor. The response and recovery were found to be very rapid in Fe^{3+} doped ZnO for NH_3, CO_2, NO_2, and LPG vapors.

Keywords: Modified ZnO sensor, CO_2, NO_2, NH_3 gas sensing, Humidity sensor, BET, TEM.

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Status of Life Sciences in Higher Education of India

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Abstract

Higher Education Produces Scientists, Doctors, Engineers, Technologists, Policy Makers, Accountants, Teachers And So Many Other Fruitful Products For The Society And Nation. Higher Education In India Is Passing Through Various Issues Including Unemployment, Unplanned Expansion, Quality Compromise, Commercialization, Teacher's Crises, Financial Issues And Many Other. Life Science Is One Of The Promising Fields Of Higher Education India. Now Forwarding To Become An International Player In Life Science Through Its Economic Growth And With Successful Biotechnological Innovations And Their Implementation. Though, Indian Scientists Related To Biological Sciences Progressing In Various Fields, There Are Certain Challenges Including Education, Misuse And Support To Next Generation. In Present Article, Author Tried To Discuss Current Status Of Life Science In Higher Education.

Key Words- Life Science, Higher Education, India, Biotechnology, Challenges

Introduction

Since Independence, Higher Education Of India Has Practiced Extraordinary Development. Through It, India Could Produce Many Able Scientists, Doctors, Engineers, Technologically Rich Personnel Who Are Having Great Demand Throughout The World. India Has Its Significant Contribution In Manpower And Tools Of Higher Education, Through Which It Reserved Its Position In Top Ten Countries Of The World In Respect To Technology And Industrial Capacity. Indian Education Is Student Centric Provides Robust And Vast System Of Higher And Technical Education And Is Responsible To Generate More Opportunities To Educated Youth (Saravanakumar And Padmini Devi, 2020).

In, India By Appreciating The Important Role Of Biology In National Development, Government Has Commenced Several Biological Research Institutes Which Opened Many New Positions For Researchers. State And Central Governments Are Providing Research Funds To Research Scholars And Institutes To Cope Up With Requirements And Infrastructure Facilities. As A Result Of These, India Is Becoming Strengthened Country To Conduct More Fruitful Biological Research And Provides Fertile Ground For New Biotechnology Companies (Vale And Dell,2009).

India Ranked Amongst The Top 12 Biotech Destinations In The World And Ranks 3rd In Asia. Due To Increasing Economic Prosperity, Health Awareness And Ever Increasing Population, Indian Biotech Industry Grown Significantly. It Is Expected That Estimate Of Biotech Industry In The Coming 2025 Will Reach Up To 150 Billion Usd (Nbds, 2021).

Role Of Government In Development Of Life Science

According To Nep-2020, Education Is Fundamental Mean For Achieving Full Human Potential, Developing An Equitable And Just Society And Promoting Natural Development. Quality Education Is The Key To Indian Leadership On The Global Stage In Terms Of Economic Growth, Social Justice And Equity, Scientific Advancement, National Integration And Cultural Preservation.

A Rapid Advancement In Science And Technology Has Led To Generation Of Critical Mass Of Highly Educated And Skilled Manpower At Secondary And Tertiary Level. Through Its National Agenda Central Government Of India Framed A Policy Through Which, It Is Aimed To Provide Quality Education In Schools And Higher Education Institutes (Ninawe,2002). In India, Various Board Of State And Central Government Included Biology Compulsorily In The Curriculum Of Primary, Secondary And Higher Secondary Schools As An Independent Subject. It Is Very Helpful For Better Understanding Of Properties Of Living Beings And Their Diversity. Biology Is Being Studied By Undergraduate And Postgraduate Students Under Various Disciplines Including, Botany, Zoology, Microbiology, Biochemistry, Biophysics, Biotechnology, Biophysics, Physiology, Genetics, Molecular Biology, Biostatics And Many Other Sub-Disciplines. Almost All Universities Of India Offer Ph.D. Programmes In Different Disciplines Under Biology And Selected Institutes Also Helps Students For Post-Doctoral Programmes Too (Lakhotia, 2002).

Indian Government Continuously Raising Funds For Research. It Is Expected That, India's Investment In R &D Sector Is Expected To Rise Form 0.9 Percent Of Gross Domestic Product (Gdp) In 2016 To Reach 2.4 Percent Of Gdp In 2034. Government Of India Continuously Introducing Various Start-Up Ipr Schemes To Ease Patent Filing To Promote Awareness For Protection And Commercializing Ipr. (Ninawe,2019).

Many Government Agencies Are Involved To Promote Biotechnology Based Education And Research. Ministry Of Human Resource And Development (Mhrd), Ministry Of Science And Technology

An Investigation of Zooplankton Diversity in Anjaneri Dam, Nashik (M. S.), India

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Abstract

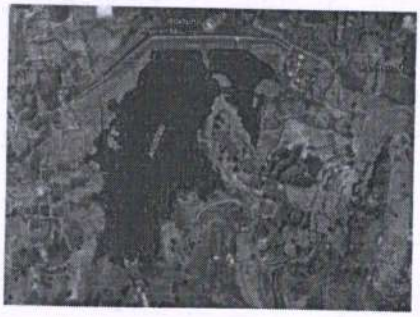
Zooplanktons are very sensitive group of organisms because they respond even at a small environmental changes. They act as indicator for pollutions and plays a key role in aquatic food webs because they are primary consumers and are food for other invertebrates, vertebrate including fishes. Most of the zooplankton species are cosmopolitan in nature. In the present investigation, authors studied diversity of different zooplanktons in the water of Anjaneri dam during February 2015 to January 2017. In the study period, total 54 species of different zooplanktons were recorded and are categorized into four major groups viz. Rotifera > Cladocera > Copepoda > Ostracoda. Rotifera was the major group comprising 48 % of total number of zooplanktons recorded with respect to diversity.

Key Words- *Investigation, Zooplankton, Diversity, Anjaneri, Dam, Nashik*

Introduction

Planktons are the most important and main components of aquatic food chain and also very sensitive floating community, which is primarily affected by anthropogenic impacts. Thus any undesirable change in aquatic ecosystem affects diversity as well as biomass of this community. The quantification of plankton's productivity helps to understand conservation ratio at different trophic level and resources as an important input for correct management of water body. Study of Plankton is beneficial in the prediction of long-term changes in a pond ecosystem, because these communities are highly sensitive to environmental variations. The occurrence and abundance of zooplankton depend on productivity of water body which in turn is influenced by biotic and abiotic factors. They link the primary producer, phytoplankton with higher large trophic level organisms. Zooplankton community affected by physicochemical changes occur in the water body. Zooplankton plays a key role in aquatic food chain (Sharma, 1998). Due to these reasons zooplanktons have brought the attention of many researchers all over the world. Many lakes and ponds are important to nearby areas as sources of fresh water supply for various reasons such as household purpose irrigations, and commercial fishing. Therefore, major environmental fluctuations may have affected economy and social implications of the local population. Through the study of these important lakes and ponds could aid in preparing for these human impacts, as well as improving our understanding of how climatic change may affect these high latitude freshwater bodies (e.g., Vincent and Hobbie, 2000).

Though, numerous studies are taken place in the field of hydrobiology on the different water bodies of India and most specifically in Maharashtra, some of the most important water bodies remained unexplored regarding their Hydrobiological point of view. Anjaneri dam of Nashik district is one of such a dam remained unexplored, so authors concentrated on it and conducted a systematic study on the dam water.



Satellite View of Anjaneri dam

Material and Methods

1 **Study area** Anjneri is an earth fill dam located at Anjaneri village near Nashik –Tryambakeshwar highway. The location of the dam is about 750 meters from mean sea level and is located at 19^0 56' 20" latitude and 73^0 55' 36" longitudes. This water body was constructed by using soil in the year 2006. The total storage capacity is 3242 cu. M. From the foundation its height is 28.19 m and length of entire project is 715 m. It Posses water throughout the year.

2. **Zooplankton Collection, Preservation and Identification-** The study of zooplankton was carried out by the monthly collection of water samples of the selected water from three sampling sites (W_1, W_2 & W_3) for the period of two years. Water sampling done once in each month between 7:00 am to 11:00 am. The water samples for zooplankton were collected by filtering 100 liters of surface water through net of bolting silk cloth No. 25 having mesh size 63 micrometer.
3. **Preservation of plankton**

The collected plankton samples are preserved in 4% formulation in 100 ml bottles. A label is affixed to the bottles indicating the site number, date of sampling, water temperature, transparency, pH etc. The

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A REVIEW ON HYDROCARBON PRODUCING PLANTS

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ABSTRACT

World today experiencing the unpleasant effects of fossil fuels which roots different types of pollutions including air, water and soil. Some plants are having the potential of hydrocarbon production and acts as biofuels. These biofuels are comparatively chief, ecofriendly and easy to produce. In this article, efforts are taken to review some plants and their biomass producing hydrocarbons and containing the capacity to alter the fossil fuels. These plants are variously known as petrocrops, biodiesel plants and so on. Algae are the most common plants groups exploited as a source of hydrocarbons. It is need of time to conserve all such botanical sources and their bioprospecting practices.

KEY WORDS- Review, Hydrocarbon, Plants, Biofuel, Petrocorp's, Bioprospecting

Article History

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1. INTRODUCTION

Plant and microbial biofuels have caught remarkable attention of scientists as they can decline the world's dependence on fossil fuels. It is accomplished by meeting the rising energy demands, reducing the emission of greenhouse gases and overcoming other environmental pollutions. Biofuels have the potential to replace the fossil fuels and can achieve the cleaning of polluting environment. Scientists throughout the world have utilized some microbial strains of *Saccharomyces* sp., *Kluyveromyces* sp., *Clostridium* sp., and *Trichoderma* sp. to obtain a high yield of biofuel (Bhardwaj et.al, 2020).

During these days, worlds energy scenario is getting changed. Due to limited availability and its non-renewable nature, it is need of time to find an alternative for fossil fuels. Also day by day costs of fossil fuels increasing which are beyond the reach of common man. In other side dependence of man on fossil fuels is ultimately increased. Biofuels, can be a better substitute for the fossil fuels which are comparatively superficial in respect to their renewable nature, cost effective and eco-friendly nature. Only we need to explore such plants and convert them in to crops by the breeding and hybridization. Several workers throughout the world have successfully explored plants with hydrocarbon producing potential (Kalita,2008).

If human being start using plants as a source of hydrocarbon or fuel comprehensively, it would be fruitful in many ways. Now a day's worldwide utilization of fossil fuels is up to 95 %. Combustion of fossil fuels poses tremendous air, water and soil pollution which adversely affect ecology and biodiversity. As

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काव्य विधा में स्वतंत्रता आंदोलन

डॉ. भारती बाळकृष्ण धोंगडे
कला वाणिज्य विज्ञान महाविद्यालय नांदगांव
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साहित्य और समाज का गहरा संबध हैं। वे एक-दूसरे पर निर्भर है। साहित्य का समाज के बिना कोई महत्व नहीं वैसे ही समाज का साहित्य के बिना। साहित्यकार समाज के बाहय और आंतरिक दोनों घटको को उद्घाटीतकरता है इसलिए साहित्य को समाज का दर्पण भी कहा जाता है। किसी भी राष्ट्र या समाज के सांस्कृतिक स्तर का अनुमान उसके सांस्कृतिक स्तर से लगाया जाता है, साहित्य समाज का दर्पण ही नही, बल्कि दीपक भी होता है, जो समाज का उसकी बुराइयों की ओर ध्यान दिलाता है, तथा एक आदर्श समाज का रुप प्रस्तुत करता है, विद्वानोंने किसी देश को बिना साहित्य के मृतक समान माना हैं।

"अंधकार है वहॉं जहॉं आदित्य नहीं है, मुर्दा हैं वह देश जहॉं साहित्य नहीं है।" 1

नीतिवादी कवियों ने कहा है "परतंत्र सपने हू सुख नही" अर्थात परतंत्र सपने में भी सुख नहीं देता, तो वास्तव में कितना दूखदाई कष्टप्रद होगा,भारत में अंग्रेजो का जूलमों से मुक्त करने के हेतू जनमानस में स्वंतत्रता,आजादी की भावनाओं को पनपने के लिए असंख्य हिंदी कवियों ने जो कृतिया सृजित की है, वह अमूल्य है उनका हम शतशः ऋण व्यक्त करते है। आधूनिक खडीबोली हिंदी कविता के प्रवर्तक बाबू हरिश्चंद्र ने भारत दुर्दशा का बडा ही मार्मिक चित्रण किया है।

अंगरेज राज सुख साज सजे सब भारी
पै धन विदेश चलि जात इहै अति रव्वारी
सबके उपर टिक्कस की आफत आई।
हा! हा! भारत दुर्दशा देखी न जाई।। 2

राष्ट्रकवि मैथिलीशरण गुप्त अपनी राष्टीय रचनाओं के कारण भारतीय स्वंतत्रता संग्राम के समय अंत्यत लोकप्रिय रहें। उनकी 'भारत-भारती' सम्पूर्ण भारतवर्ष में गूंज उठी थी। उससे अनेक स्वंतत्रता संग्राम सेनानियों ने विशेष प्रेरणा प्राप्त की। गुप्त जी को अपनी ओजस्वी कृतियों के लिए जेल यात्रा भी करणी पडी थी। उन्होंने जहॉं स्वंतत्रता आदोलन में व्यक्तिगत रुपसे भाग लिया वही प्रेरक कविताओं में अनेक भारतीयों को बलि-पथ पर अग्रसर किया।

"किस भॉंति जीना चाहिए,किस भॉंति मरना चाहिए
सो अब हम निज पूर्वजों से याद करना चाहिए।
पद-चिहन उनके यत्न पूर्वक खोज लेना चाहीए,
निज-पूर्व गौरव-दिप को बुजने न देना चाहिए। 3

पंडित माखनलालचतुर्वेदी कविताओं ने भी स्वंतत्रता सेनानियों के हृदय में राष्ट्रप्रेम की भावना जाग्रत की। 'एक फूल की चाह' शीर्षक कविता की कुछ पंक्तियॉं

चाह नही मैं सुरबाला ने गहनों में गुॅंथा जाऊ।
चाह नही प्रेमी माला में बिंध प्यारी को ललचाऊँ।
चाह नही देवों के सिरपर चढ भाग्य पर इठलाऊँ।
मुझे तोड लेना बनमाली उस पथ पर देना तूम फेंक।।

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Napier Grass (*Pennisetum purpureum*): An Emerging Biofuel Crop

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Abstract Fossil fuels cannot be recommended due to their high cost, nonrenewable and pollution causing nature. It is predicted that, if present situation of fossil fuel exploitation will not change, Carbon dioxide emission in to atmosphere will increase by 50 to 250 %. Biofuels are now a day getting importance due to their low cost production, renewable and low pollution causing characters. The major sources of biofuel especially bioethanol are corn, sugarcane, sugar beet and wheat. But these are food crops which if used for the purpose of biofuel production could influence on food to population ratio. Napier grass is an efficient and effective solution to this problem as it produces lignocellulose biomass which can be used as a cheap and renewable source for biofuel production. Botanically, Napier grass is known as *Pennisetum purpureum* which belongs to grass family, Poaceae. In this article, author tried to throw light on Napier grass especially with its biofuel producing potential.

Keywords: *Pennisetum purpureum, Napier grass, Biofuel, renewable, energy source*

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1. Introduction

Fossil fuels raised up various disadvantages including its ever increasing prices, non-renewability and causes pollution by emitting wide range of carbon pollutants. Now a day, rising costs and the rapid consumption of the fossil fuels lead world to search for alternative energy source. Energy crops is the best and permanent solution which is renewable and comparatively cheap and releases less hazardous pollutants. Energy crops are again divided into two types, first generation and second generation crops. First generation energy crops generally are rich sources of starch and sugars and otherwise used as source of food. Their use for the purpose of biofuel production may lead to food crisis. Second generation energy crops however evolved to minimize this threat. These plants derived from lignocellulose material and agriculture waste such as grass, corn cob and wheat straw [1,2]. As compare to other crops, Napier grass has a potential to produce higher amount of biofuel and bioenergy per unit land area [3].

Napier grass or elephant grass (*Pennisetum purpureum*) is a newly evolving food crop considered suitable for biofuel production which having production capacity approximately 87 tons per hectare. It can be harvested five to six times in a year due its rapid growth [4]. Another important parameter associated with the grass are high productivity, low production cost, can grow on infertile land and whole plant utilization [4]. The Napier grass has higher tolerance against diseases and pests and shows vigorous growth even at stress conditions [5]. It is commonly used as animal feed in Malaysia and also as a food source in Nigeria [6]. Napier grass is a warm season perennial grass native of Africa adapted well to tropical and subtropical climates [7].

Biofuels especially bioethanol and biodiesel originated from renewable energy sources like Napier grass are gaining importance as they can be used to minimize load on fossil fuels. Fossil fuels have many damaging effects on environment such as greenhouse effect. It is estimated that carbon dioxide emission in the world can be reach up to 50-250 % by the year 2050, in which transportation sector has highest share [8]. Biofuels derived from lignocellulosic biomass such as Napier grass have several other benefits to society such as facilitating local economy development and stimulation, reduction in air pollution caused due to burning of biomass in fields. It also helps to minimize land and water pollution caused due to biomass rotting in fields. Biofuels helpful to bring energy security for countries dependent on imported oil. Biofuel production can produce job opportunities to engineers, fermentation specialists, and scientists [9].

Napier grass is highly suitable material for biogas production which contains the composition of carbon dioxide (30.10 %), methane (63.50%) and 5 ppm of H_2S gas. It is observed that NaOH pretreated sample produces high yield of biogas than untreated raw material [10].

There are several challenges for use of Napier grass for the production of biofuels. These includes food-fuel conflicts, negative energy balance, large quantity of water

आंतरराष्ट्रीय राजकारण आणि पर्यावरणीय समस्या

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सारांश : आज जगामध्ये मोठ्या प्रमाणात पसरलेल्या प्रदुषणामुळे पर्यावरणीय प्रश्न गंभीर झाला आहे. जगातील वाढती लोकसंख्या, पाण्याचे प्रदूषण, वायू प्रदूषण, भूमी प्रदूषण, ध्वनी प्रदूषण, विज्ञान आणि तंत्रज्ञानाचा विकास यामुळे पर्यावरणावर विपरीत परिणाम झाला आहे. प्रदूषणामुळे जगात ज्या समस्या निर्माण झाल्या आहेत त्याचा परिणाम सर्वच राष्ट्रांवर होताना दिसतो. आपल्या राज्याच्या परिसरात प्रदूषणापासून संरक्षणाची दक्षता घेणे हे आंतरराष्ट्रीय कायद्यांतर्गत सर्व राज्याचे कर्तव्य असते. त्याचा इतर राज्यावरही परिणाम होतो. यामुळे हा प्रश्न आता जागतिक बनला आहे. पर्यावरण हा विषय आता जागतिक स्तरावर राजकारणाचा विषय झाला आहे. विशेषत: विकसित देश या प्रश्नावर राजकारण करताना दिसतात.

प्रस्तावना : दुसऱ्या महायुद्धानंतर औद्योगिकिकरणाचा वेग वाढला आणि त्याच वेगाने पर्यावरणाचे मुद्देही समोर येण्यास सुरुवात झाली. पर्यावरणावरील परिणामाचा थेट फटका मानवी समाजाला बसत असल्याने या मुद्द्यांना सामाजिक आणि राजकीय आयाम आले. यातून १९६०— ७० च्या दशकामध्ये ग्रीनपीस, ग्रीन नेटवर्क, फ्रेंड्स ऑफ अर्थ या संघटना आकाराला आल्या नव्याने उदयाला पर्यावरणवाद्याचा रेटा वाढत गेला. तशी आंतरराष्ट्रीय व्यासपीठालाही दखल घ्यावी लागली. यातून १९७२ मध्ये स्टॉकहोम येथे संयुक्त राष्ट्रांची पहिली मानव पर्यावरण परिषद झाली. याच व्यासपीठावरून पहिल्यांदा विरळ होणाऱ्या ओझोनया थराचे वास्तव मान्य करण्यात आले. आंतरराष्ट्रीय व्यासपीठावरून बळ मिळाल्यामुळे सर्वच देशात कमी अधिक प्रमाणात पर्यावरण चळवळी वाढण्यास सुरुवात झाली. १९८० च्या दशकात ग्रीन पॉलिटिक्स, इको ग्रीन्स, ग्रीन मुव्हमेंट यासारख्या चळवळी आकाराला आल्या. १९८० च्या दशकात घडलेली भोपाळमधील वायू गळती, चेर्नोबिलाच्या अणुभट्टीतील स्फोट, अलास्कामध्ये झालेली तेल गळती आणि आखाती युद्धात पेटवण्यात आलेल्या तेलविहिरी या घटना पर्यावरण चळवळीना आक्रमक होण्यास कारणीभूत ठरल्या. १९८९ मध्ये झालेल्या युरोपियन निवडणुकीमध्ये पहिल्यांदाच पर्यावरणाचा मुद्दा उचलण्यात आला. या निवडणुकात वेगवेगळ्या देशामध्ये विखुरलेल्या ग्रीन पक्षांनी एकत्रितपणे प्रचार केला. तेव्हापासून आजपर्यंत युरोपातील निवडणुकांमध्ये पर्यावरणाचे मुद्दे निर्णायक ठरत आहेत. १९८७ मध्ये झालेला क्योटो करार, १९९२ मधील रिओ करार व अनेक स्वयंसेवी संस्थांनी भाग घेतल्याने पर्यावरणीय प्रश्नाला जागतिक स्तरावर गती आली .

उद्दिष्टे : १)आंतरराष्ट्रीय राजकारणातील पर्यावरणीय समस्यांचा अभ्यास करणे
२)पर्या वरणीय प्रश्नचा जागतिक राजकारणावरील परिणामाचा अभ्यास करणे

गृहीतके

१)आंतरराष्ट्रीय स्तरावर पर्यावरणीय प्रश्नात मोठ्या प्रमाणात वाढ होत आहे.
२)जागतिक पातळीवर पर्यावरणीय समस्या सोडवण्यासाठी राष्ट्रे एका व्यासपीठावर एकत्र येत आहेत.

संशोधन पद्धती : प्रस्तुत विषयाचा अभ्यास करण्यासाठी द्वितीय तथ्य सामग्रीचा वापर करण्यात आला. यात प्रामुख्याने या विषयाशी संबंधित पुस्तके, संदर्भ ग्रंथ, वर्तमान पत्रे व संकेत स्थळांचा आधार घेण्यात आला आहे. विषयाची मांडणी करण्यासाठी वर्णनात्मक व विश्लेषणात्मक पद्धतीचा आधार घेतला आहे.

विषय विश्लेषण : आंतरराष्ट्रीय राजकारणामध्ये पर्यावरणीय समस्यांना स्थान का मिळाले याची अनेक कारणे आहेत. आपणस ज्या पर्यावरणीय संकटांना सामोरे जावे लागते ते राष्ट्रीय सुरक्षेसाठीदेखील धोका आहे. पारंपरिक लष्करी धोक्यांप्रमाणे पर्यावरणीय ऱ्हास हा मानवी समाजालाच धोका आहे. संपूर्ण इतिहासात, पर्यावरणीय घटकांनी मानवी

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***Woodfordia fruticosa* (L.) kurz (Family-Lythraceae) is an important medicinal plant which has proved its potential through multiple disciplines. The plant is shrub with long and spreading branches. Leaf and flower extract of the plant is very effective against different ailments including cancer, leucorrhoea, diabetes, menorrhagia, menstrual and pregnancy related issues. The extract contains different phytochemicals e.g. carbohydrates, alkaloids, tannins, phenols, saponins, flavonoids, steroids, phenols, triterpenoids, carboxylic acid and Quinone. These chemicals have antimicrobial activity against different bacterial strains including *Bacillus subtilis*, *Staphylococcus aureus*, *Escherichia coli*, *Pseudomonas aeruginosa* etc. and fungal species like *Alternaria solani*. The current review describes the ethnomedicinal, phytochemical, pharmacognostic, antioxidant, antimicrobial properties of the plant.**

Keywords: *Woodfordia fruticosa*, Ethnomedicinal, Lythraceae, Bacterial strains, *Alternaria solani*, Phytochemicals.

INTRODUCTION

Studies on the relationship between plants and man are in progress throughout the world. Many such research works have been undertaken and being done in India. Traditional healing system plays an important role in maintaining the physical and psychological wellbeing of the vast majority of tribal people (Reddy et al., 2007). Worldwide realization of the medicinal plants in various traditional healing systems of developing countries is increasing. The World Health Organization (WHO) revealed that about 80% of population relay on traditional remedies to treat various ailments.

Woodfordia fruticosa (family Lytheraceae) is an important medicinal plant used in Ayurvedic as well as other systems of medicine. It has its different vernacular names. In Hindi it is most popularly known as Dhava, in Marathi it is known as Dhaiti and sanskrut it is known by the name Agniwala. The plant grows up to 3 meter in height with many branches and lanceolate leaves, produces bright red or orange coloured flowers. This plant grows on hills throughout India (Shome et al.,1981).Current review describes different aspects associated with this plant.

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A. Pharmacognostic Properties

Macroscopic characters: The morphology of plant is described and leaveshave astringent taste and a characteristic odour (Birajdar et al., 2014). The details of flowers, fruit and seeds of the plant are described by Shome et al., (1981), Sharma and Sharma, (2019), Baravalia et al., (2011).

Microscopic characters: Upper epidermis of leaves shows unicellular layer with plenty of trichomes which are of both glandular and non-glandular type. The epidermis has few anomocytic and anisocytic stomata. Lower epidermis is also unilayeredwith plenty of stomata. Pedicel also contains single layered epidermis with numerous unicellular trichomes. The epidermis is followed by 6-7 layered cortex differentiated into two zones namely outer collenchyma and inner parenchyma. For details please refer to Sharma and Sharma (2019), and Birajdar et al., (2014). Microscopy of stem is also described by Sharma and Sharma (2019).

T.S. of flower stalk shows a thick walled epidermis with thick cuticle. Collenchyma is 2-3

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SYNTHESIS OF DERIVATIVES OF CHLOROSUBSTITUTED FLAVONE

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ABSTRACT

As a part of study, we have synthesized chloro-substituted flavone derivative from flavanone which is obtained by cyclization of 1-(4-chlorophenyl)-3-(2-hydroxyphenyl) propane-1,3-dione with various substituted aromatic benzaldehyde by using a catalytic amount of piperidine under solvent of ethanol. The entire reported compound has 72–80 percentage of isolated yield. All synthesized compounds were characterized by Mass ^{1}H NMR and IR Spectroscopy.

Keywords: Flavonoids, Flavone, Flavanone, Aromatic aldehyde, Piperidine

INTRODUCTION

Flavonoids involve a group of naturally occurring compounds. They are a major constituent of many fruits, vegetables, beverages, and secondary metabolites. Flavonoids' family members (e.g. flavones, isoflavones, and neoflavones) possess many medicinal proper. Flavones which are a class of flavonoids constructed on the backbone of 2-phenylchromen-4-one together from flavones extra flavonoids are

ग्रामीण विकासाचा सुधारित केंद्रीय दृष्टीकोन

प्रा. डॉ. पी. टी. निकम

अर्थशास्त्र विभाग प्रमुख, कला, वाणिज्य आणि विज्ञान महाविद्यालय नांदगाव,ता. नांदगाव जि. नासिक.

प्रास्ताविक :

ग्रामीण विकासाचा अभ्यास करताना ग्रामीण समाजाचे स्वरूप अभ्यासणे आवश्यक आहे. ग्रामीण समाजजीवनात निर्माण होणारया समस्यांवर उपाययोजना योजून ग्रामीण समाजाचा विकास सर्वांगाने घडवून आणण्यासाठी विविध स्तरांवरती प्रयत्न केले जात आहेत. याबरोबरच ग्रामीण विकासविषयक योजना, कार्यक्रम राबविण्यात येवू लागले. यामुळे ग्रामीण ग्रामीण समाजाचे स्वरूप बदलत आहे. या बदलापाठीमागची पार्श्वभूमी आणि ग्रामीण समाजाच्या विकासासाठी कारणीभूत असलेल्या घटकांना समजण्यासाठी ग्रामीण विकासाचा अभ्यास करणे गरजेचे आहे. भारतात ६,४१,००० गावे आहेत आणि एकूण लोकसंख्ये पैकी ७२.२ टक्के लोकसंख्याया ग्रामीण भागात आहे. त्यापैकी १,४५,००० खेड्यांमध्ये प्रत्येकी ५०० ते ९९९ लोक राहतात; १,३०,००० खेड्यांची लोकसंख्या दर खेड्यामागे १००० ते १९९९ च्या दरम्यान आहे; आणि १,२८,००० खेड्यांची लोकसंख्या प्रत्येकी २०० ते ४९९ आहे. म्हणूनच भारतातील ग्रामीण क्षेत्राचा विकास झाल्यास आपोआपच देशाचा सर्वांगीण विकास घडून येवू शकतो असे म्हटले तर ते चुकीचे ठरणार नाही.

अभ्यासाची उद्दिष्ट्ये :

१. ग्रामीण विकासाचा अर्थ आणि वैशिष्ट्ये अभ्यासणे

२. ग्रामीण विकासाची उद्दिष्ट्ये अभ्यासणे.

३. ग्रामीण विकासाबाबत केंद्रीय योजना आणि त्याबाबत केंद्रीय सुधारित दृष्टिकोनाचा अभ्यास करणे.

संशोधन पद्धती :

प्रस्तुत अभ्यासासाठी दुय्यम तथ्य संकलन पद्धतीचा वापर करण्यात आलेला आहे. याअंतर्गत वृत्तपत्रे, संदर्भ ग्रंथ, संकेतस्थळे इत्यादींचा वापर करण्यात आलेला आहे.

ग्रामीण विकासाचा अर्थ :

कार्ल टेलर – ग्रामीण विकास ही एक अशी प्रक्रिया आहे कि,ज्यामध्ये ग्रामीण लोक आपली आर्थिक आणि सामाजिक परिस्थिती सुधारावी यासाठी ज्या प्रक्रियेत सहभागी होतात आणि त्यामुळे ते आपल्या राष्ट्रीय विकासाच्या कार्यक्रमात काम करणारे प्रभावशाली समूह बनतात.

जागतिक बँक – ग्रामीण भागातील लोकांच्या आर्थिक आणि सामाजिक जीवनात सुधारणा करण्यासाठी तयार करण्यात आलेली व्यूहरचना म्हणजे ग्रामीण विकास होय.

ग्रामीण लोकजीवन आर्थिक आणि सामाजिकदृष्ट्या सुधारण्यासाठी ग्रामीण लोकांसाठी राबविण्यात येणारी प्रक्रिया म्हणजे ग्रामीण विकास होय.

ग्रामीण भागातील आर्थिकदृष्ट्या दुर्बल लोकांचे जीवनमान त्यांच्या क्रियाशील सहभागामधून उंचावणे म्हणजे ग्रामीण विकास होय.

ग्रामीण लोकजीवनातील आर्थिक, सामाजिक,सांस्कृतिक,शैक्षणिक,राजीकीय ई. क्षेत्रामध्ये सुधारणा घडवून आणणे म्हणजेच ग्रामीण विकास होय.

ग्रामीण विकासाची वैशिष्ट्ये :

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Antimicrobial, Cytotoxicity and Molecular Docking Study of New Quinoline Schiff Base and its Metal Complexes

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A new quinoline Schiff base ligand was synthesized by the reaction of 2-hydroxy-7-methylquinolin-3-carbaldehyde and 4-methylbenzene sulfonohydrazide. Synthesized Schiff base further utilized for the formation of stable metal complexes with Cu(II), Ni(II), Co(II) and Cd(II) metal salts and characterized by different spectroscopic techniques *i.e.*, ^{1}H NMR, ^{13}C NMR, FT-IR, UV-visible, ESR, MASS and TGA. The low molar conductance values indicate that synthesized metal(II) complexes were non-electrolytes. The magnetic moment value indicates that Cu(II), Ni(II) and Co(II) complexes were paramagnetic. Further, these compounds were screed for inhibition activity against four bacterial strains, three fungal strains and cytotoxicity against the A-549 and MCF-7 cell lines by using the MTT method. Among the synthesized complexes, metal complexes exhibited excellent anticancer activity against the human lung cancer cell line (A-549). Ligand and its Cd(II) complex showed good antibacterial activity. Furthermore, molecular docking study shows the significant binding affinity of metal complexes with tubulin protein. Hence, present study proposed that all the synthesized Schiff base metal(II) complexes have excellent biological activity and could be act as potential anticancer agents.

Keywords: Schiff base, Sulfonohydrazide, Quinoline, MIC, Cytotoxicity.

INTRODUCTION

Schiff bases are an interesting class of compounds, which attracts considerable attention of researchers. This is because of their diversity in its property, structural variability and their easy preparation [1,2]. They play an important role in the formation of the chelate compounds [3]. Schiff base having electrons reaches functional groups such as -OH, -SH and $-NH_2$ at adjacent positions to the azomethine group help to develop coordination with metal ions, which form stable complexes [4-12].

Metal complexes derived from Schiff bases are an interesting area of research. Such complexes have been widely used as biological [13-20], analytical [21,22] and catalyst [23-25] field. Form the study, it was observed that the coordination of Schiff base with metal ions increase the biological activity of Schiff base [26,27].

Among the heterocyclic compounds, quinoline and its derivatives were found to be a significant class in the biological field [28]. Several derivatives of quinoline are found to be effective antibacterial [17], antimicrobial [29], fungicides [17], antiviral [30], anti-inflammatory [31, 32] and antitumor activities [33]. Simultaneously, metal complexes derived from quinoline Schiff bases have extensive applications in different areas such as, catalyst in various types of reactions [34,35], dyes in solar cells [36], corrosion inhibitor [37], antioxidant [2], cytotoxic [28], DNA cleavage [38], anticancer [39], *etc.*

To find better antimicrobial and anticancer drug, we have designed and synthesized novel quinoline Schiff base and its metal(II) complexes. Synthesized compounds were confirmed by different analytical techniques and studied for its anti-bacterial, antifungal and cytotoxicity activities.

EXPERIMENTAL

All the required chemicals were purchased from Sigma-Aldrich Chemical Co., (USA), Molychem Chemical Supplier (Mumbai, India) and used as such for further synthesis. Fourier

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Research Article

An Extensive and Intensive Investigation of Harmful Invasive Alien Species of Nashik District (M.S.), India

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Abstract

Background and Objective: In India, many foreign plants have been introduced intentionally or non-intentionally which further occupied nearly every habitat of the country. These foreign plants are commonly known as invasive plants which do not occur naturally in the region but rapidly proliferate in the area where they were introduced. This study observes the harmful invasive alien species. **Materials and Methods:** Many invasive plants were previously observed in the different regions of the Nashik District. The author made frequent visits to various parts during the period, July, 2019 to December, 2021 and collected invasive plant specimens. The collected plants were identified by using local district and state floras and other types of taxonomic literature. **Results:** In the present survey, recorded 94 invasive plants species belonging to 33 families. Asteraceae was found to be the dominant family including 18 species. Most of the plants recorded were from terrestrial habitats and predominantly herbs. The majority of plants recorded in this paper are of American origin (72%) followed by African (12%). **Conclusion:** It is observed that these invasive alien species posed several negative implications on the local environment and biodiversity. Some of these plants do have some medicinal applications.

Key words: Invasive plants, Nasik, biodiversity, threats, medicinal applications

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Competing Interest: The authors have declared that no competing interest exists.

Data Availability: All relevant data are within the paper and its supporting information files.

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19. Partition Politics : A Study of Selected Partition Movies

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Abstract

As the clock struck midnight on August 15, 1947, celebratory shouts of freedom from colonial rule were drowned out by the cries of millions frantically making their way through the corpse-littered landscape of nascent India and Pakistan. After more than one hundred years of British East India Company rule and an additional 90 years of the British Raj, the Indian subcontinent had finally achieved Independence. What should have been a moment of crowning triumph after years of anti-colonial struggle was indelibly marred by unimaginable violence and bloodshed.

Keywords- Partition, Politics, Independence, Cinema, Bollywood, Migration,

Partition Politics: A Study of Selected Partition Movies

Nobody likes the division of India and my heart is heavy. But the choice is between one division and many divisions.

(Sardar Patel on Partition)

The Indian subcontinent was partitioned into two independent nation states: Hindu-majority India and Muslim-majority Pakistan. Immediately, there began one of the greatest migrations in human history, as millions of Muslims trekked to West and East Pakistan (the latter now known as Bangladesh) while millions of Hindus and Sikhs headed in the opposite direction. Many hundreds of thousands never made it.

Nisid Hajari, in "Midnight's Furies" (Houghton Mifflin Harcourt), his fast-paced new narrative history of Partition and its aftermath, writes,

"Gangs of killers set whole villages aflame, hacking to death men

and children and the aged while carrying off young women to be raped. Some British soldiers

A Proposed approach for multipath routing in IoT Network using FIS

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In an Internet of Things network, multipath routing applies a fuzzy logic method to minimize energy consumption, end-to-end latency, and ETX (expected transmission count). Consider the three factors as inputs for improving QoS in low-power, lossy networks. This paper presents a unique adaptive fuzzy multi-criteria decision making approach for determining the ideal next hop from multipath routing to reach the destination node, as well as a fuzzy inference system to display the findings using a membership function. The proposed technique also priorities the route, which will assist in picking the best way among several options. Unlike previous techniques, it depends on non-QoS-affected channels for fast data transmission. It also increases network lifetime by changing cluster heads on a regular basis based on residual energy and employing the appropriate amount of data transmission links. The RPL objective function was created using fuzzy logic, and the results were utilized to discover the optimal answer. Furthermore, the suggested adaptive fuzzy multi-criteria decision making approach outperforms existing state-of-the-art competing techniques in terms of energy efficiency and lifetime.

Keywords: IoT, Fuzzy logic, Energy, Delay, ETX

1. INTRODUCTION

Routing is one of the most difficult challenges in wireless sensor networks (WSNs). Unbalanced energy usage during the data packet routing operation is one of the primary issues with WSNs. This issue must be solved since the energy level of sensor nodes is limited. In today's terms, the internet is the most important aspect of our lives. Modern wireless sensor networks (WSNs) require strict time and energy constraints. By far, the most important resource is battery power. The sensor batteries are not replaceable or rechargeable [16]T. and F., 2018.

Furthermore, rapid transmission of sensed data is required so that recovered data may be utilised. As a result, the key focus is on developing energy-efficient and delay-aware routing protocols that help to reduce end-to-end energy consumption if sensed data is to be transferred at the sink while still assuring timely data delivery. Such networks include the internet of things (IoT), multimodal sensor networks, and body area networks. Researchers, companies, and academicians are aiming to link all "things" in the world to the internet, which is known as the "internet of things," in order to offer us a better life. It is expected that the Internet of Things will facilitate heterogeneity to a much greater degree. The objective of the Internet of Things is to be able to connect to anything and anybody at any time and from any location, preferably via any path and any device. The phrase "Internet of Things" was coined by Kevin Ashton of the MIT Auto-ID Centre. According to the author, "the Internet of Things has the potential to revolutionise the world in the same way as the Internet did, if not more so [5]D. Miorandi and Chlamtac, 2012." The IPv6 protocol is widely used in RPL for low-power lossy networks. Routing data across a network comprised of disparate devices and networking protocols is a significant task. Routing is extremely difficult for networks because of low power and lossy radio connections, battery-powered nodes, multihop mesh topologies, and rapid topology changes caused by mobility. Continuous changes in network scalability can have an impact on routing. In this work,

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IMPLEMENTATION OF MITIGATING INTERFERENCE BETWEEN MACROCELL AND FEMTOCELL IN USE OF WIRELESS NETWORKS

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Abstract: The future of cellular networks is inclining towards the growth of the "Information and Communication Technologies" (ICT). In order to satisfy the demand of subscribers, the higher and higher data rate is being expected in the present period of time. The deployment of small cells such as femtocells and picocells has helped to align the traffic and workloads in macrocells. Cellular networks' spectral efficiency and network coverage are both targeted for improvement as well. It is necessary to overcome interference between macrocells and small cells in order for numerous practical uses of small cell deployment. This paper explores the mitigation model to alleviate the interference between macrocell and femtocell of the cellular systems. The searching intelligence is facilitated by the femtocell networks. Mostly the secondary users communicating with the "cross-tier interferences to the authorized network is known as macrocell network". By keeping this in mind, the Fractional Frequency Reuse (FFR) model is designed to mitigate the interferences between the macrocells and femtocells. With the use of Femtocell Access Points (FAPs), the best locations of the node placement are done. Furthermore, it is analyzed in both indoor and outdoor environments for better resource utilization. The spectral efficiency of the nodes is improved by increasing the count of FAPs. The network throughput rate is improved by lowering the interferences happening during cross-tier systems. The random placement of cellular nodes experiences a lowered SNR that drains the node's energy rapidly. Pertaining to this goal, the proposed interference management follows three actions, namely, planning that assists the femtocell devices with better transmission power; gaming action that ensures the selection of best FAPs and performance assists for the best location. The Femtocell User Equipment (FUEs) combines with the FAPs during the connection process. The simulation analysis is carried out in the wireless cellular environment with some assumption on network constraints. It is inferred from the results that the proper alignment of the femtocells node can eliminate the interference happening in the co-tier systems.

Keywords: Cellular Networks; Small Cells, Femtocells Access Points, Frequency Reuse; Spectral efficiency and Interferences.

1. INTRODUCTION:

Many real-time applications, including "medical, military, monitoring, tracking, and so on", have taken use of wireless sensor network advancements. For real-time applications, the need

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Invasive plant species of Maharashtra state: a review.

Especies de plantas invasoras del estado de Maharashtra: una revisión.

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ABSTRACT

Invasive plants are the species which do not occur naturally in the region but rapidly proliferate in the area where they introduced and causes several negative impacts on local biodiversity, economy and human health. Many such plants are intentionally or non-intentionally introduced in various regions of the world and particularly in India. In the state of, Maharashtra many such plant species have been introduced deliberately for the purpose of ornamentation, agriculture and for other purposes. In this article, efforts are taken to gather information of such invasive alien species introduced in different regions of Maharashtra state.

Key words- Alien, Invasive, Plant species, Maharashtra, Review, Biodiversity.

RESUMEN

Las plantas invasoras son las especies que no se encuentran naturalmente en la región pero que proliferan rápidamente en el área donde se introdujeron y causan varios impactos negativos en la biodiversidad local, la economía y la salud humana. Muchas de estas plantas se introducen intencionalmente o no en varias regiones del mundo y particularmente en la India. En el estado de Maharashtra, muchas de estas especies de plantas se han introducido deliberadamente con fines ornamentales, agrícolas y con otros fines. En este artículo, se realizan esfuerzos para recopilar información de tales especies exóticas invasoras introducidas en diferentes regiones del estado de Maharashtra.

Palabras clave: exóticas, invasoras, especies de plantas, Maharashtra, revisión, biodiversidad.